THE

# PEDAGOGICAL SEMINARY.

Founded and Edited by G. STANLEY HALL.

VOL. IV. APRIL, 1897. No. 3.

## EDITORIAL.

This number concludes the fourth volume of the PEDAGOGICAL SEMINARY. According to the announcement of the last number, subscribers are invited to renew, that, if possible, a second volume may be published this year.

In the present number Mr. Street prints a concise description of the chief methods of teaching modern and foreign languages now before the public, comparing and criticising each. At the close of his historical survey he seeks the psychological basis of the processes and concludes that the modes of teaching ancient and modern languages have been too much alike and need differentiation, and that all language studies could and should be completed at eighteen years of age. The stress of teaching modern language comes far too late, and his suggestions of reform are stimulating and practical. Every one interested in the subject should carefully ponder these conclusions. A valuable bibliography is appended.

The second article, by Mr. Crosswell, is a comparative study of actual courses of study now authorized in the city and country schools of the United States. Each topic is classified according to the States which legally require it. State courses are first studied, based on various tables; graded and the ungraded rural schools are examined. A special section is devoted to a scrutiny of the courses of several leading cities. Perhaps the

Printed in Germany

reader of this careful and comprehensive article should begin with the general summary —p. 334.

Mr. Burk has digested a large body of syllabus returns on the propensity of children to Tease and Bully, with many illustrative cases. The instincts of fighting, of exercising authority, robbery, torture, exciting fear and anger, the practical joke, hazing, etc., are presented with conclusions concerning care and treatment.

Mr. Partridge digests in like manner many returns on Second Breath, and discusses the age at which it is most frequent, and its physiological action, and the function of the phenomena it presents.

Miss Frear has digested and tabulated the cases of imitation in the recent volume by Principal Russell and Miss Haskell, and extracted a number of interesting and valuable results, which are presented in a series of graphic tables.

A large number of brief book notes on recent important publications in the field of education is appended, and an index for both subjects and authors, by Mr. L. N. Wilson, concludes the volume.

# A STUDY IN LANGUAGE TEACHING.

By J. R. STREET, Fellow in Clark University.

## HISTORICAL.

Mr. Quick, in his essay on the "Schools of the Jesuits," says: "Since the revival of learning, no body of men has played so prominent a part in education as the Jesuits. With characteristic energy and sagacity they soon seized on education as a stepping stone to power and influence, and with their talent for organization, they framed a system of schools that drove all important competitors from the field." Whether fortunately or unfortunately, they have left as an entailed legacy to succeeding generations, the peculiar linguistic element that so permeates all educational life. Their days and nights were given up to making their young disciples proficient in classical knowledge. Almost nothing was taught except what grew out of the text in hand. Soon Latin was elevated to such a prominence that it became the means of daily intercourse between master and pupil, and even among pupils themselves.

A Franciscan friar of Brittany, Alexandre de villa Dei, formulated the most important, if not the first grammar of the age. Lily, Colet, Erasmus, took up the task and simplified and methodised grammar.

With Roger Ascham there came a still greater revolution. In the "Schoolmaster" there is shown the deepest insight into the art of teaching and a treatise on the subject is attempted. Of this book Dr. Johnson says, "It is the best advice ever given for the study of languages." Mayor goes further and declares it "to be the only sound method of acquiring a dead language."

## ASCHAM'S METHOD.

Quoting from the Schoolmaster, "Latin is to be taught by first letting the child learn the eight parts of speech, and then the right joining together of substantive with adjective, noun with the verb, the relative with the antecedent. After the concords are learned, let the master take Sturm's selections of Cicero's epistles and read them after this manner. First let him teach the child, cheerfully and plainly, the cause and matter of the letter; then let him construe it into English so oft as the child may easily carry away the understanding of it; lastly

parse it over perfectly. This done, then let the child, by and by, both construe and parse it over again; so that it may appear that the child doubteth in nothing that his master has taught him. After this the child must take a paper book, and sitting in some place where no man shall prompt him, by himself let him translate into English his former lesson. Then showing it to his master, let the master take from him his Latin book and pausing an hour at the least, then let the child translate his own English into Latin again into another paper book. When the child bringeth it turned into Latin, the master must compare it with Tully's book, and lay them both together and when the child doth well praise him, when amiss, point out why Tully's use is better."

By this means it is claimed the child will easily acquire a knowledge of grammar, and also the ground of all the rules that are so busily taught by the master and so hardly learned by the scholar in all schools. It is certainly an admirable method of teaching grammar, taking the pupil as it does, to the source of the rules and thus avoiding the cold and uncomfortable task with which a new language is usually commenced. Mr. Ascham says further, "without doubt *grammatica* itself is sooner and surer learned by examples of good authors than by the naked rules of grammarians." He would insist upon the analysis of every lesson carefully into the *proprium*, *translatium*, *synonyma*, *diversa*, *contraria*, *phrases*, (see The Schoolmaster). In Book Two he divided language work into *Translatio Linguarum*, *Paraphrasis*, *Metaphrasis*, *Epitome*, *Imitatio*, *and Declamatio.* He, however, insists upon only *Translatio* and *Imitatio.* Of the latter he says, "both learned and mother-tongue be gotten and gotten only by imitation." His greatest instrument, however, was translation, which was of a double character, as is indicated in the first quotation. In further explanation of the value he set upon this exercise the following quotation is given: "Ere the scholar have construed, parsed, twice translated over by good achievement, marked out his six points by skillful judgment, he shall have necessary occasion to read over every lecture a dozen times at least."

The most lenient criticism that may be passed upon Ascham's system is, that it would tend to beget a spirit of indifference through the monotony of so frequent repetitions.

The leading features of his system are:

I. Direct contact with the language from the beginning.

II. Clear understanding of the interpretation of the passage under study.

III. This understanding is to be accomplished, not by lexicon, but by the teacher's translation.

IV. Converting of the language into the vernacular and then back again into the original.

V. A complete syntactical analysis under the six *points*.

VI. Repetition.

VII. It introduced writing.

Montaigne, who was a contemporary of Ascham, in his "Essays" advocates the learning of a foreign language (Latin) entirely by conversation. He would have the child grow up to consider Latin his mother tongue. By this means he hoped to have the pupil think for himself and thus grow strong. "We suffer ourselves to lean and rely so very strongly upon the arm of another, that by doing so we prejudice our own strength and vigor."

A further impulse was given to language study in the seventeenth century by Ratich, who astonished his times by professing to be able to teach a foreign language in six months. His almost fabulous professions caused him to be suspected and even treated as a charlatan. He, as well as Montaigne in France, and Mulcaster, Milton and Locke in England, belonged to the class of educational reformers, who began to cry out against the slavishness to foreign languages, to the neglect and even exclusion of the vernacular, and the study of things.

According to Mr. Quick, the chief demands of these reformers were: 1st, that the study of things should precede, or be united with the study of words; 2nd, that knowledge should be communicated when possible, by appeals to the senses; 3rd, that all linguistic study should begin with that of the mother tongue; 4th, that Latin and Greek should be taught to only such boys as would be likely to complete a learned education; 5th, that physical education should be attended to in all classes of society; 6th, that a new method of teaching should be adopted, framed according to nature. (Ed. Ref. page 32.)

Articles I, II, III, and VI, form the nucleus from which has developed the countless number of so called "New Methods," "Nature Methods," etc.

### Ratich's System.

It differed but slightly from that of Ascham. The principles underlying them were practically identical though diverging in execution. With Ratich, children were first grounded in the vernacular, and when they were advanced to Latin, they were given a literal translation of Terrance, or whatever author they were to study, and were required to work it over thoroughly before they were permitted to see the original. The master then translated once or twice over each portion assigned for study. At the next reading the master translated the same piece again, and then the boys turned it into the mother tongue.

Having worked the author through in this manner, it was begun again and translated only by the pupils. Then followed a course in grammar based upon the familiar text. Then the pupils were required to translate into Latin, sentences of the vernacular, constructed similar to the translation of the author read.

This method certainly would conduce to thoroughness, but the intense monotony of repeating, in such labored way, the work done, would seriously militate against its success.

We pass over Milton and other reformers, who but repeated, with slight variation, the methods given above, to describe the work of Comenius who metamorphosed not only linguistic study but educational methods generally.

### Comenius.

To thoroughly understand what he did for language, attention should be given to his work generally. To Luther in the 16th, and Comenius in the 17th century, is due the honor of organizing primary education. Comenius occupies in the history of education, not only a prominent position but one of commanding importance. From him emanated principles that permeate the whole modern movement of education. He may justly be called the educational progenitor of Locke, Rousseau Pestalozzi and Froebel. Before his time everything was Latin and Latin was everything. With him the vernacular became the medium for gaining information of the outside world. He further made it the basis on which to construct study in the foreign language, maintaining that a boy should be thoroughly taught in the mother tongue until ten or twelve years of age, and then he will be able to acquire any other language in a year or two at most. The changes suggested and even effected by him were perhaps greatest in linguistics. As we have seen, great advance had been made by Ascham and Ratich, but Comenius was the first to make conversation about things the basis of future study. He conceived the idea that what is necessary to the young student, is a vocabulary with which he can express all the objects and relationships of daily contact. In other words, the natural highway to the literary citadel is the colloquial. He strenuously opposed the three prevailing evils of earlier methods, viz.: 1st, the teaching of Latin without the child's having a prior knowledge of things ; 2nd, the introduction of much grammar in the earlier stages, and 3rd, compelling boys to advance by unnatural bounds instead of by steady pace.

In his own words his fundamental principle is, "In the place of dead books, why should we not open the living book of nature . . . . . To instruct the young is not to beat into them by repetition a mass of words, phrases, sentences and opinions, gathered out of authors, but to open their understand-

ing through things." (Compayré's History). Accordingly, to open the gateway of knowledge, he composed Jauna Linguarum, which was soon followed by a revised edition to which pictorial representation was added, and bore the name of Orbis Pictus.

The principles advanced by him in regard to language work may be summarized as follows:

1st. Things should precede words, but they should not be separated.

2nd. One thing at a time, i. e., when reading is being taught do not burden the pupil with grammar.

3rd. Through repetition comes remembrance.

4th. The mother tongue and then languages.

5th. Precept must follow example.

6th. No language should be learned from a grammar.

7th. All languages should be learned in their simplest rudiments first.

8th. Advancement should be made without a dictionary.

His method. Use the language in conversation. Read to the pupil simple extracts so as to cultivate the ear and aid pronunciation. Let him do much reading. Translate into the vernacular and write many exercises. Thus, by much analysis, excerpt and imitation, a thorough knowledge of the language may be obtained. He was firmly of the opinion that all languages, including the mother tongue, should be taught in the same way, with the exception that more appeal should be made to the ear in the case of the living languages.

In his own text he went far astray from the path of rectitude as marked out by his precepts. From the labors and writings of this educational bishop, there may be gathered many useful ideas that find their application in modern pedagogy, and among them, that of not putting into the hands of a child, who is beginning the study of a foreign tongue as a first reader, literary masterpieces is not the least. The work this reformer began was continued by Locke and Pestalozzi.

### The Classical Method.

So ubiquitous is this method that it need be scarcely more than mentioned. It is the one prevailing to-day. In it the first book put into the pupil's hands is a grammar, in which he must give his attention to abstract principles, individual words, and translating from the vernacular into the foreign tongue. Most grammars treat the parts of speech separately, and give generally an exhaustive treatise on the general and special uses of the part of speech under consideration (see Fasquelle, Ollendorf, Whitney, De Fivas, etc.); many rare uses are introduced, paradigms abound, and lists of isolated words are given to be

committed with the hope that they may be useful sometime. Then follows a short exercise of translating from the language studied into the vernacular, and *vice versa*. Care, however, is taken to make these exercises consist of a useless jargon of silly sentences. This process, difficult and uninteresting, is continued for at least a year, at which time a pupil, if a bright one, may be permitted to see an author, but if not so brilliant as his more fortunate brother he must take another year's turn at the grammatical treadmill. When he is permitted to commence reading an author he is not allowed to pursue the whole work, but some particular sections are chosen. Thus he becomes acquainted with but fragments of the author. No help other than a misleading lexicon is allowed him, and he must plod on in the dark with the hope that light will dawn somewhere.

This system is certainly a great retarder of linguistic power. It is synthesis for analysis, precept for practice. Locke says: "I should be glad if I could be shown the language that could be learned by the rules of grammar." La Mare: "A century of theory will not advance us a step in the knowledge of Language." Condilac: "It is the grossest mistake to commence with rules." In this system undue prominence is given to pronunciation, memory work and themes, the child becomes an automaton and the teacher, a hearer of recitations ; it is simply drudgery.

### The Scientific Method ; Advocated by Herbert Winslow.

He introduces his system by saying that the reason why thousands of educated men never go beyond the first rudiments of language study is owing to the study of grammar and dictionary. His plan is to avoid extremes, i. e., the exclusive use and the entire rejection of these. The outline of grammar should be studied, and then the learner should commence to read, using the dictionary when necessary. The root and primitive meaning should be carefully examined, so as to be able ever after to recognize them and all of their offsprings. The elements of words should be studied, particularly the prefixes and suffixes, and their effect upon the words to which they may be joined. The roots should come next. As all European languages have many roots in common, the change that is effected in passing from one to another should be noted, and the root form for the several languages learned. Thus the student could carry on the study of several languages at once. His idea may be exemplified as follows: G. Eros. L. Amor. I. Amore. F. Amour. Ger. Lieben. Eng. Love. Each word has but one original meaning, all others are secondary. The student should search out this meaning and fasten it into his

mind, and from it deduce all the others, and thus he will get behind the dictionary and come to the real fountain of knowledge for the meaning of words. Then from the root as many derivations as possible should be formed and their meanings noted. Ex: G. elauno, gives Latin, pello, Eng. pel or pul. To this may be added the prefixes con-dis-re-un, etc., and likewise with suffixes. He would continue this process with every word met with which contained a new root. Truly he would give his pupils full draughts from the fountain of language.

### HAMILTON.

The Hamiltonian system forms a fitting transition from the classical to the natural systems. Briefly stated, its method of procedure is: supposing Latin to be the language to be learned, Hamilton would put into the pupil's hands an interlinear version of the Gospel of St. John, so literally translated, as to show the gender and number of the nouns, and the mood and tense of the verb. All idioms are translated not by the corresponding idiom but by literal rendering. Great care should be taken to give the primitive meaning of the word, and always the same signification to the same word, no matter where it occurred. After the pupil had gained considerable knowledge of the vocables and accidence of the language, he was then practiced in turning the English back into the Latin. By this method the author claimed that a pupil would acquire more Latin in six months, than he would in six years by the classical, or scientific method.

The criticism that may be pronounced upon this method is, that no language admits of a word for word and uniform translation; and that it produces no mental discipline, which should be at least one aim of study. It may be commended in this, that it sought to present to the scholar language as a living organism, and to lead him to discover its laws from observation.

### JACOTOT.

Jacotot, an ingenious but erratic Frenchman, conceived the idea that "all knowledge is one," and therefore from a common center irradiates the several departments. Firmly believing in this unity of truth, he advanced the theory that everything can be learned by mastering one author. Accordingly he chose Télèmache as the material out of which to create an intellectual world. In studying this book, the pupil must not only know the words, but must master its sense and its spirit. He required the book to be learned by rote. His method was to commence at the beginning, each day, and advance a little beyond the work of the preceding lesson. Ratich and Hamilton

would have the book read rapidly from beginning to end. Constant repetition was the keynote of Jacotot's song. He tried to train so that the pupil would never forget. His principles were:

1st. "Il faut apprendre quelque chose et y rapporter tout le reste."

2nd. Learn so as to know six months hence.

3rd. Repeat always from the beginning.

4th. Reflect so as to assimilate the matter and make it a part of the mind as well as of the memory.

5th. Verify. i. e., all grammatical laws must be tried by the standard of the facts learned. (Educational Reformers and Compayré, Histoire de Pedagogique.)

THE MASTERY SYSTEM. (Longman, Green & Co., London.)

Thomas Prendergast, in the preface to the eighth edition of the Mastery Series (French), says: "The method is designed to enable any person, whether young or old, to *converse* in any foreign language fluently and idiomatically within a period of three months." The system is primarily for those who wish to acquire a speaking knowledge of the language, but is also designed to aid any student of language, as the author held that the natural way to the mastery of any language is through the colloquial.

The system, it is claimed, is based upon the method instinctively pursued by children in learning a foreign language, when brought into direct contact with the people who speak it. They are driven by force of circumstances to repeat and imitate the sentences they hear, and to form new combinations by transposing the words. This gave Mr. Prendergast the idea of selecting long sentences, so that variations can be made from them by simply rearranging. He takes a score of sentences containing as many words, and from these, forms endless variations. The student becomes familiar with the type sentence by reading it over many times, but never memorizing it consciously. This sentence is then broken up into clauses and the changes rung on them until their utterance becomes an unconscious process. A new sentence is then taken and handled in a similar manner. Two things are insisted on, repetition and rapidity.

The system is one of memory, but differs from the preceding methods by appealing to the memory through the ear and the muscle sense. The lessons are extremely short and the repetition so frequent that the learner becomes absolutely automatic.

The soundness of the principle on which this method is based is admitted by nearly all reformers of language study, so that the cause of its failure must be sought elsewhere.

### The Meisterschaft System.

As the Mastery System failed through the unfortunate choice of model sentences, Herr Rosenthal strove to remedy this defect in his Meisterschaft. Having observed the readiness with which donkey boys of Alexandria, and guides acquire a new language, he concluded that there must be some natural laws governing the mode of acquisition, and thought he discovered these in the fact that the language of children is wholly one of necessity, i. e., a request for a common object, water, food, etc. Having determined that want and desire are the birth soil of the child's language, the next important step was to discover the extent of the vocabulary. He was aided in this endeavor by the observation of Bayard Taylor, whose experience with many languages led him to conclude, "that in all languages there is a stock vocabulary," from which will speedily grow numberless ramifications and sprayings. This led Rosenthal to the assumption that what is necessary is such an assorting of the foreign words as nature does for the child in his vocabulary. The first distinguishing feature, therefore, of the Meisterschaft system is the "proper selection of the vocabulary of common life." The method of procedure is so similar to that of Prendergast's that it would be an unnecessary repetition to describe it.

After the student has spent some little time on the model sentences, short grammatical explanations are introduced. In addition to these, reading and translating exercises form part of the work. The system thus combines with the colloquial element, grammar and reading, and is therefore an advance upon the Mastery Series.

Monsieur Sauvaur has gone on a step farther than Rosenthal. He would have nothing but absolute conversation. His excellent text, Causeries avec mes Élèves, is filled with suggestive material for such work. His plan is to exclude from the classroom the vernacular in any form, also all texts, and thus let the exercises grow out of question and answer, *viva voce*. After a period of two or three months of this kind of work, he finds it advisable to have his pupils read a French selection from Fontaine's fables, and he then makes this reading the basis of the conversation by asking all sorts of explanatory questions, the answers to which must be given in the original.

### Marcel.

Claud Marcel makes the very logical and legitimate assertion, that there are two classes of languages, i. e., living and dead, and as the aims for which these are studied are different, the methods of acquiring them should also be different. The classics are pursued for mental discipline only; the moderns,

for the wealth of political, scientific and industrial life stored up in them. As the ancient languages are no longer the medium of communication, the power of reading them will be found sufficient. With the modern, at least, one step further in advance should be taken. The ear, as well as the eye, should become a factor in their acquisition. In acquiring and reading Latin and Greek, the mother tongue is the chief instrument, translation the chief agency. In reading French and German there should be no appeal whatever to the vernacular.

Mr. Marcel readily accepts the hypothesis of Prendergast, that the unit of language is the sentence; and further, that nature's mode is example, not precept; practice, not theory. Accordingly, he constructed his method on the basis that *reading* is the correct mode of commencing the study of a foreign language. Now there are two ways of reading: direct and indirect. The former is thinking in the original language, the latter in that of the pupil.

To accomplish the first, and avoid the second, he constructs his book so that the interpretation of the foreign language is printed either underneath the original, or on the opposite page. By this means of bi-lingual reading, the pupil can pass, sentence by sentence from the interpretation to the foreign text without the aid of a lexicon. The attention is thus directed to the phrases rather than to individual words, so that the pupil is trained to comprehend the significance of the words in their united relationship. It has further the advantage of creating and sustaining interest, as progress is so much more rapid, and there is no danger of dying of mental starvation, as is the case with the classical and ordinary methods.

The book is so arranged as to begin with familiar subjects treated in very simple language, free from literary idioms and conforming to the primary rules of grammar. These are followed by anecdotes and popular readings, so chosen, that there will be a constant re-occurring of the words, so that they will become fixed in the memory of the reader. Led on thus by reiteration and interpretation, the student soon finds himself in a position to supply the meaning of a new term from the context. Gradually the English translation is omitted and the book closes with standard literary selections. Marcel would have the teacher read much to the pupil, so that the ear may be trained, and in his home work studying aloud is required. In reading the foreign language the pupil must plunge through and never allow himself to translate into the vernacular. After the student has acquired some knowledge of the vocabulary, grammatical work may be introduced.

This was an epoch making system. To-day, in France and in almost every other country, bi-lingual readers are a great

factor in acquiring a foreign tongue. With the goal that Mr. Marcel set for it, it does not seriously violate pedagogic principles. It has the advantage of giving the student the correct interpretation to be assigned to the words, and saves many hours that would be otherwise spent in thumbing a dictionary. It presents a comparatively easy and speedy, if not a royal road, to learning to read a foreign language.

THE CONVERSATION METHOD. (E. Gastineau, New York.)

The author, in his preface to the edition of 1888, states that the reason for the development of his method is the unnaturalness and the inconsistency of all previous methods. They, according to him, are based on the principle of (a) the presentation of words in either vocabularies or simple meaningless sentences; (b) the drilling of the pupil in constructing sentences with this material from the simple word up. The nature of the vocabulary is antagonistic to progress, and its extent is so vast as to be entirely beyond the comprehension of the child mind.

In the Conversation Method, the principle of presenting to the pupil at the outset, not single words but complete sentence forms, is followed, but with this characteristic, that the author claims to have drawn these from the daily life and activity of the pupil, instead of their being foreign to his experience. They are coupled with their translation and pronunciation, so that they may easily be mastered and turned to immediate conversational account. They are repeated in colloquial exercises, and when thoroughly familiarized, the words of which they are composed are made to reappear in an endless variety of new forms and idioms, thus making repetition, with variation, the chief corner stone of the future edifice. By this means the power to think in the foreign idioms will be acquired.

In the early part of the text, grammar is not introduced, though footnotes are employed to explain the more marked inflectional changes. As the work progresses, the five "Cardinal Rules" are inserted, and at the close will be found a concise statement of all the chief grammatical points. Thus the author does not divorce grammar and language as most writers of natural systems do. One of the most characteristic features of the work is its typical nature. Notwithstanding the claim of the author, the substance of the book does not come within the practical realm of child nature, and its power to accomplish the task set for it may be seriously questioned.

THE CUMULATIVE METHOD.

Adolph Dreyspring (Leipzig and N. Y.).

This is a method devised to facilitate the learning to speak

French and German. Originally compiled in the German for the aid of foreigners learning that language, its success was so marked that the author felt justified in making an edition for the acquirement of the French. It is perhaps the best compilation there is for elementary work when the aim is *speaking* and *hearing*, and not reading. It most strenuously avoids all inflectional pabulum, and offers exercises along the line of least resistance, viz.: nouns, adjectives and prepositions, with the copulas. "In other words," quoting from the author, "the descriptive power of speech has been given the preference over the volitive." The common sense nature of this device is self-evident. Children spend almost all their early days in acquiring knowledge of things; with them sight is the main factor. They have not yet acquired the power of understanding abstract linguistic equivalents. Their mind and thought has been occupied with the concrete of life, hence anything that appeals to the habits of their existence will have greater interest for them than that which is foreign to their nature. Appreciating this fact, the author has introduced into the work a great many ingenious picture representations which form the basis of the language work. The distinctive features, in the words of the author, are: "1st. Presentation of the normal phases of the language first. 2nd. Selection of its elementary material with special reference to what is usually in sight. 3rd. Development of the first needs of speech, as manifested by the simple queries qu'est-ce que c'est que cela? comment? où? qui? à qui? de qui? quoi? de quoi? pour quoi? a quoi sert-il? 4th. Unfolding of the language out of itself. 5th. Vocabulary within reasonable bounds. 6th. A constant revolving of the accumulating material under ever varied forms and new combinations. 7th. Special care to interest the student and to preserve his enthusiasm for the study.

Though dialogue is the chief characteristic of the text, yet writing, and even reading are not neglected. As the work advances it becomes more intricate and idiomatic and closes with lengthy paragraphs of French for translation.

### The Series System.

The most recent system, and one that is attracting considerable attention, is the Series System compiled by M. Gouin, of Paris. Prof. Gouin, who, in the introduction to the "Art of Teaching and Studying Languages," gives a full account of his efforts to learn German from text books and his utter failure, succeeded so well by the "Series Method," that at the end of two months and a half he was able to take part in a philosophical discussion at Berlin.

Like all the other so-called natural systems, it claims for its

foundation, nature, and probably comes nearer to it than any of the others. It grew out of observing the development of the thought and speech of a little lad who had visited a mill for the first time with his mother. He was carefully shown over the mill, and inquired of his mother for information concerning the several parts. On returning home, the boy remained for some time in silent thinking, and then rehearsed all that he had seen. This feat so startled and interested the professor, that he began to investigate the psychological processes underlying the same and found, as he thought, three. 1st. Perception, by means of which substance for thought was presented to the mind. 2nd. Incubation, or digestion, during which the boy reflected upon what he had perceived. 3rd. Ideas are always connected by a succession of time ("and then"), and further, this connection was established as a means to an end (grinding corn). 4th. Reproduction of what had been perceived. He further noted, that in passing from one idea to another, the child proceeded by sentences. Thus was confirmed the thesis of other reformers that the sentence is the unit of thought. He further discovered that in this process *action* was the transitional means, consequently the verb becomes the chief member of the sentence. It also occurred to the professor that the ear had been the avenue through which the child had received the names of the several pieces of machinery and their uses, and the eye had been employed only for observation.

From these facts the professor gained his principles, viz.: perception, reflection, reproduction; the process, sentences not words; the verb, the main word of the sentence; the ideas arranged according to succession of time, and each set of ideas a means to an end.

On the assumption that all life may be learned, as was the mill and its purposes, he accordingly worked out his system on the classification of life into seven divisions. Each division was subdivided into series, and the series into chapters, and the chapters into exercises. Thus the work is made to cover every relationship of common life, so that to complete the book is to put the student into the possession of the linguistic equivalents of the objects and facts of life. So complete is the vocabulary, that when the fifteenth series had been completed, the compiler had crossed out 30,000 words from the dictionary. The sentences of the exercises are very simple and the connection clear. Few nouns are employed, so that special attention may be given to the verb. The language of thought and of feeling are combined in the conversation, with the more concrete employed in naming objects.

Grammar is taught more or less purposely, but not after the old mode, by calling attention to the different forms employed

to express the different acts of different persons, or the same act done at different times and under different conditions. Through the act of separating out the verb, and calling special attention to it, then to its subject and afterwards to its object or adjuncts, the sentence syntax is clearly developed.

This in brief is the system. The plan of using the text will vary with the individual teacher. M. Gouin recommends familiarizing the pupils with the English and then call attention to the verbs in their consecutive order. Have the pupil thoroughly learn them by performing the action. After this the addition of subject and object or complement, is a mere formality. M. Gouin is very careful not to allow the pupil to see the word until its pronunciation has been given.

In closing this review of M. Gouin's method it may be well to state that his book, entitled "Art of Teaching and Studying Languages,"[1] is composed wholly of theory. The application of the method will be found in "A First Lesson in French."[2]

## Historical Conclusion.

The work that has been done in Germany along the line of reform of language methods is an interesting and profitable chapter. The leading school-men from every part of the realm are taking a hand therein, and are discussing the very questions that concern this western world. Indeed the country has gone far beyond discussion and has been, with marked success, employing the reform methods in many schools. Some idea of the extent of the movement and of the character of the men taking part therein, may be learned by referring to the Bibliography appended to Stichler's pamphlet on "Zur Methodik des Neu sprachlichen Unterrichts," in which no less than 177 articles, by some of the best men of the Fatherland, are represented. What does all this agitation and experimentation mean? Not that a great panacea for all the ills of linguistic education has been found, so that there will be no more heart-aches and head-aches thereover, but that the fossilized system of bygone times, which has escaped being put under the sod with its contemporaries, must now receive decent interment, in order that its place may be occupied by a more rational, as well as more modern system.

## Psychological Foundations.

After the preceding brief survey of the growth of language methods, it is proposed to discover what psychology and psychological pedagogy may contribute to the development of a

[1] Geo. Phillips & Sons, London.

[2] Chas. Scribner's Sons, N. Y.

method more productive and pleasurable, and therefore more successful than those in general use. I do this at the risk of repeating psychological platitudes, but with the hope that some more substantial basis may be discovered.

As to the origin of language and the nature of speech, psychology has clearly shown that it is not an invention (Erfindung) of human ingenuity, or mechanical necessity, but that it is a power, or activity of the human soul, and one which owes its perfected state to a mental evolution, brought about through the necessity of communicating man with man. Steinthal says "speech is not a something like powder, but an occurrence, like explosion. It is not an organ, like the eye, or the ear, but an ability and an activity, like seeing and hearing." Felix Lange adds, "speech exists only in the soul of the individual, each individual has his own speech, as he has his own ideas." Müller, Noiré, Schluss and others, express similar opinions. What does all this mean? Simply this, that speech is the outward manifestation of the mental states. As ideas without speech are unfructifying, so speech without the idea is dead, or better, the automatic chattering of the demented. The idea, therefore, becomes the necessary accompaniment, even the precursor and progenitor of speech movements. Close observation of childhood, reinforces this truth, for children from the very first learn language only as the expression of their thought, never as isolated words which may be stored up for future use. It is always first the idea and then the expression. The word never precedes the mental presentation, but rises with it. With the psychic evolution, there seems to be correlated a parallel verbal development. In the adult, introspection will show how close is the connection between thought and speech. Have modern language methods had due regard to this fundamental fact? Have we not divorced these two, whom nature has joined together? Do we not proceed on the basis that language is the progenitor of the idea? Should not more use be made of the content of the pupil's mind, and of his environment?

A second point of interest is the rôle played by each of the senses in the building up of psychic life. I am not prepared to admit the contention of the sensualist, that sensation is the sole principle of knowledge. It is, however, true that the chief gateways to the soul are the senses. They are the only means of gaining information concerning externality. As the great majority of the terms of a language has to do with the world outside of us, it follows as a natural conclusion that the best, and, in fact, the only satisfactory way to acquire these terms, is in connection with the sensations. This is just what nature does for the child, and she points the true pedagogic way. It is not difficult to remember the name of an instrument one has used,

nor of a place one has visited. True, there is a physiological reason for this which will appear later. The point I wish to make here is, since sensation is the basis of knowledge the more extended the sensation the deeper the knowledge. It follows, as a natural corollary, that the more combined the action of the senses, the greater will be the rapidity of acquisition.

From this it must follow, that to connect an English word with a corresponding foreign word, is not the most favorable mode of learning a language, since it is establishing unnatural associations, and hence does not pursue the most adhesive methods, nor is it supported by the highest degree of interest. As far as possible the condition of learning the mother tongue, or the conditions of residence in a foreign country should be established, in which the knowledge of things (sensations) is kept ahead of the knowledge of words.

A third product of psychological investigation is the sense difference existing among individuals. It has been clearly demonstrated that all persons do not possess the same process of mental absorption and retention. Mental images is a subject that hitherto has not received the attention due to its pedagogical importance. Recent experiments have shown, that some individuals pre-eminently possess visual images, while others are almost exclusively of the auditory type. Many instances of images of a muscular or motor type have been found. The great mass of mankind reinforce one kind of image by another. This came out very clearly in a piece of work done by Miss Smith at Clark University, last year, in which it was shown that in learning the deaf and dumb alphabet, if the subject was allowed to make the signs as well as see them, the retentive power was increased from 13 to 20%. Eye-ear-and-motor-mindedness play such a practical part in the psychic life, that to ignore them is pedagogic homicide. They are the foundation stones on which the superstructure of memory is built, and that system of education that does not pay due regard to these individual differences is liable to be more productive of evil than of good. The pedagogic error hitherto has been, in teaching languages, that one sense alone has been appealed to most strongly, to the neglect of the others.

Psychology has done much to reveal the true nature of memory and the laws that underlie its operations. To give a description of memory does not lie within the province of this paper. It must, therefore, suffice to say, that by memory is understood "the law of habit" in the nervous system. The power of retention will depend entirely upon the persistency of the neural paths established, and their permanency will be the product of the character of the impression made. The one principle that underlies all acquisition is interest, or attention.

A child seldoms forgets the name of an article after hearing it once, if the name be given at a time when the child feels an intense need for the name. It is impossible to establish such an interest in all the work of the school, but much can he done by scientific methods in the hands of enthusiastic teachers.

The power of recall is very closely bound up with that of retention. The machinery of recall is association. In the ordinary relationships of life, two laws operate, viz.: similarity and contiguity. In daily experience with the world, similarity is the prevailing one, while in language study contiguity seems to assume the greater importance. In using the mother tongue the association is what may be called double, i. e., from the name to the object, or from the object to the name. In the study of a foreign language as ordinarily pursued, association is single or perhaps better, is neither, as it requires the intervention of the mother tongue. To explain, the word chair calls up the object readily, or the object will cause the word image to appear. The word *chaise*, or *stuhl*, however does not call up the image of the object but the image of the word chair, and this calls up the object. Schematically it might be represented thus, let M represent the mother tongue, F the foreign, and O the object ; then in using the vernacular we have M <—> O while in the acquisition of French we have F —> M —> O. O —> M —> F. It should be O <—> F.[1]

Without carrying the illustration to any further length, the pedagogical bearing may now be pointed out. Language should not be taught by individual words, for, in so doing, an association is established between the language learned and the mother tongue. 2. The idea should precede the word, so that they may arise together in consciousness and thus become yoke-fellows. 3. The various terms should be employed in different connections, so that many associations may gather around a word and make its retention easy and its recall pleasurable. 4. The concrete must precede the abstract. 5. As much as possible must be made of the language studied without the intervention of the nationale.

The voice of psychology gives us instruction as to how the mind operates upon wholes rather than parts ; how it proceeds from the knowledge we already have to the unknown, from perception to conception, and from the simple to the more complex ; how the laws of neural habit are established, how the growth of will power is developed, and last, how all instruction must be graded to the stages of the mental development of learner.

---

[1] Die praktische spraeherlernung. Franke.

## Pedagogic Suggestions.

It is a generally acknowledged fact that language teaching has not kept pace with the other departments of school and college work in the onward march of progressive development. Mathematics and science have been so systematized that much can be, and is, accomplished in a comparatively short period. With language there is such a tenacious clinging to ancient customs, and such a veneration for, and conservation of, methods hoary with age and emaciated with use, that a great part of the formative period of the student life is practically wasted in the disheartening formalism that seems to pervade the subject everywhere. Well might the German leaders of pedagogic thought cry out in anguish of spirit: "Der Sprachuntericht muss umkehren." The spirit of advance seems to have so seized that nation, that the very air is full of the reform cry.

It is a positive crime, chargeable to the well intentioned but deluded body of men and women who have in charge this special work, to cause young men and women to spend in thumbing a dictionary the hours that ought to be passed in fruitful effort. It would not be so unfortunate a state of affairs if, at the close of eight or ten years spent in language study, the student could readily read or fluently speak the languages, but the facts are the very opposite.

Some one is to blame for this. Where does the fault lie? First and chiefly in the method, and secondly in the texts employed. Notwithstanding the efforts of reformers, such as those sketched above, teachers still persist in teaching the ancient and the modern languages with the same ends in view, and by the same methods. It is true, that up to a certain point, the methods should coincide, but the trouble has been that the vital spirit that ought to pervade all modern language study, has either never arisen, or has been strangled in the conflict with the "Dead languages," as so many are prone to call them. It is time to learn a lesson at nature's school and to do things along the line of the least resistance.

It may be Utopian, but I can see no reason why language study shall not have accomplished its work by the time the pupil has attained the age of eighteen, so that his succeeding years may be given to scientific study of language, or the broadening of his culture by a course in the other departments of study. It is a well established fact, that very little educative value comes to the adult in the study of a language *per se*. How very necessary, then, to have the languages in such a state of proficiency that they will become the ready servant of the man in the pursuit of higher learning.

There are a great many factors that will enter and modify

the teacher's method. The foremost of these is the teacher's aim. There can be but four ends to be reached in teaching language, viz.: *reading*, *hearing*, *speaking*, *writing*. I have given them in the order of their relative importance, so that the power to read (translate if necessary) is the supreme goal. Is it not a fact that what little use is made of the language is in acquiring the power to write, the very thing that is of the least importance?

Another important element is the age of the pupil. Surely the child of ten ought not to have thrown to it the same linguistic nuts to crack that are given to his more adult brother. Yet we find little or no differentiation in method when these two classes are concerned.

Little attention is paid to the difference among pupils as to eye and ear-mindedness. All are taught through the eye, though many learn best through the ear, and all best through both avenues acting conjointly.

The pupil's past teaching, time at his disposal, and also at the teacher's, character of texts, will be dominant factors in determining the course of action. There is a tendency to place in the hands of a youthful student, as soon as he can begin to read, a selection from standard authors. He is thus brought into contact with the highly literary forms of the language and the difficulty of acquisition is made still more difficult. He should be given simple stories in the early stages.

Supposing the pupil to have attained a proficiency in reading his native tongue, a line of procedure may be as follows: The first few weeks should be spent by the teacher in making the pupil familiar with the rudimentary sounds of the language, and peculiarities of construction and inflection, if the language be a classical one; if a modern language, in teaching the phonetics of the language and in simple conversation, so that a free and ready pronunciation may be acquired. As the aim of studying Latin and Greek is chiefly discipline, it is perhaps not advisable to introduce much conversation, but in the case of the moderns, the more conversation during the early stages the better. Reading aloud from a French or German text may profitably be introduced, and where the instructor cannot speak the language, take the place of conversation. But, if possible, during the first few months this should be employed, and in that time the pupil's ear will have been sufficiently trained to discriminate the sounds, and a sufficient vocabulary will be gained to permit of future lessons being conducted in the language studied. This is very important, as mastery of a language comes, not from looking at the verbal forms and then giving the English equivalent.

Translation is of vital importance as an educative factor and

should not be neglected, neither should it be the chief agency employed. The principle is: "These ought ye to have done, and not to leave the other undone." The pedagogic principle of Comenius is still true in the main, "learn to do by doing," or in its more modern form "learn to know by doing," and "learn to do by knowing," which, when translated into linguistic pedagogy, would read "learn to know by using." It is astonishing how much can be accomplished in three months of vital contact with the language. 150 or 200 words are sufficient to conduct an ordinary lesson, and these can easily be acquired.

During these early weeks a suitable reader should be allowed the pupils. The language therein should be as free from perplexing idioms as possible. Short passages should be read to the pupil and then translated. They may then be read by the pupil and transcribed at his home, or desk. As time advances the teacher will find it less necessary to give attention to this phase of the work, and he may thenceforth devote his time to the facilitating of the reading knowledge. He should be at all times the pupil's dictionary. Various devices, by way of aid have been introduced, such as the bi-lingual series of Marcel and others, and interlinear texts. Both of these are good if correctly used. After the first few weeks, preference, however, should be given to uni-lingual texts, especially if they be a version of some fairy tale, story or incident with which the pupil is familiar in his own language.

After a fair reading knowledge has been attained, work on formal grammar, transcription and translation may be introduced. Retroversion will be found an excellent task.

The plan of keeping the learner in constant contact with the language must produce a mastery of the language in one-half the time, than when, as at present, no serious work is done except in turning the language studied into the vernacular and translating disconnected, and even sometimes silly English sentences into the foreign tongue. It has further the advantage of familiarizing the student with the native signification and uses of the individual terms. It also makes the sentence the element of study, and lastly it is, as far as can be, a substitute for residence among the people whose language is being learned.

With the classical languages there is no valid reason why a similar line of procedure should not be followed. Roger Ascham propounded the first and only true method. It is certainly unpedagogic to begin with the abstract, which the classical method does. Rules of grammar are studied and syntactical gymnastics are introduced, before the student has any knowledge of the material he is going to handle. It is true, that, since these languages are highly inflected, some knowledge

of their verbal forms must be obtained, but there is no sound reason why the five declensions, all adjectival and pronominal paradigms, and the conjugations, even to the semi-deponant, must be mastered before the work of reading a text begins. The student should be introduced to an author as soon as possible, and grammatical knowledge will grow out of the work with the text.

Another unjustifiable method is to give the pupil a certain number of lines to prepare for a recitation exercise, without furnishing him with any aid other than a confusing lexicon, and a bewildered brain. Why not, as Ascham advises, first translate the lines so that he may have some idea of their significance, and thus be enabled to feel that he is making some progress with the task. Hard, difficult roads do not develop particularly strong horses, neither do unnatural methods produce giant intellects. I plead strongly and earnestly for more help for the student and less laying on of burdens grievous to be borne. A teacher can do his pupil no greater service than teach him how to correctly use a "pony" if his own time be too much engrossed to permit of his frequently translating the Latin for the pupil. Here, as in modern languages, what the student wants is quantity and not minuteness. More grammar will be learned by reading Cæsar through in this fashion with syntactical explanations, as occasion demands, than can be acquired by months of "rule learning." Though the more recent grammars have made great advances, there remains yet much to do.

There is still another side to this question, and that is the age at which to commence language study. Statistics on this point are extremely meagre, but agree that it should begin at a very early age. Some writers and experienced teachers assert that, when possible, two languages should be learned from birth. It does seem that nature has set apart a portion of life and consecrated it to this purpose. The plastic period seems the best adapted to this end. This would throw it somewhere between infancy and puberty. If it were necessary to name a definite year, 5 or 7 would seem very fitting for the commencement of this work. By the time the child is ten he will have a sufficient grasp of one foreign tongue to permit the introduction of a second. At twelve Latin may be begun.

An interesting question, and one that ought to be settled by a sufficiently broad piece of experimentation, is whether a modern language or Latin should come first, and if a modern language, which one? It does seem that the step from English to Latin is too extended. The chasm lying between them may fittingly be bridged over by French, which has so much in common with both.

What the present system of education sadly needs is a language kindergarten, where properly qualified teachers would give oral instruction in French or German. It does seem that this vital period of the child life is not improved as it should be. If this instruction were confined to speaking, there would be no serious danger of hurting the child. Thousands of children yearly learn to speak, besides their mother tongue, the language of their environment. Their acquisitive linguistic power seems even greater than the adult's, then why should we not use it?

The practicability of the kindergarten idea shows itself in two ways. First, all the lightness and activity of kindergartens appeals strongly to child nature, so strongly indeed, that no difficulty is found in teaching children lengthy songs and poems when movement and music are employed. The words, the thoughts, are sung and danced into their very souls. How easily and delightfully would foreign languages lend themselves thereto.

Again, everything with which the child would come in contact would have a language content; the names of the several articles he handles, their use, all instruction, the games, everything connected therewith. It would become for him a veritable little France or Germany.

This might be extended far beyond the kindergarten period. Why should there not be language laboratories, the same as are provided for psychology and the sciences. Instead of barren walls, maps and charts would appear; instead of vacant corners, useful apparatus would be found, and instead of drowsy students and wearisome lectures there would be the busy hum of a foreign metropolis. Prof. Learned, of the University of Pennsylvania, in the *Journal of Pedagogy*, offers a couple of timely suggestions, viz.: The employment of environment, and differentiation in method. He would have students preparing for scientific or mechanical work taught on a purely utilitarian basis; those looking towards the learned professions on a culture basis; and those preparing for investigations in philology and literature on a scientific basis. He would further surround the student with sights and articles connected with the language he was studying, so that the very air he breathed would be permeated with the same, and everything he touched would give him a linguistic thrill.

Such is no more visionary than were scientific laboratories at the begining of this century. Why could we not have somewhere in this country an institution of advance work where all the lectures would be given in French and German, so that American students could get at home the benefit of foreign residence?

## Experiments.

I close this paper with a description of three classes of experiments which have been carried on in connection therewith.

In order to test the practicability of the kindergarten idea, I took my own son, a lad of five years, and employing the articles of the home, particularly those of the sleeping apartments, dining-room and table, and kitchen, gave him the German names for 5 or 6 of them daily. Gradually I introduced a few verbs and adjectives. When I ceased the exercise with him, he could readily name all the articles and use many of them in simple sentences. After a period of eight months, during which there had been no reference to the German he had learned, I submitted him to an examination and found to my surprise, that he retained his acquired knowledge almost as well as I did myself.

My second experiment was undertaken to discover the advisability of dispensing with lexicographic work, i. e., letting the instructor be also the student's lexicon. I had successfully tried this method with youthful students but desired to see what would be the result with an adult. Compayré's "Histoire de Pedagogique" was chosen. The first 110 pages were translated by the pupil. (It should be stated that he had little or no knowledge of French grammar and none whatever of vocabulary.) In reading these pages, he used me freely as a dictionary and a translator, whenever an awkward idiom occurred. In this text there is a more or less often recurrence of words which enabled the terms to become fixed in the mind of the reader. At the end of the 110 pages he was able to translate, with an occasional lift by me, 7 pages an hour. He was then asked to read without my help, and a record of the time and pages was kept the same as before. It was found that after 4 hours' work he had covered 20 pages, or had translated at a rate of 5 pages an hour. His intimate knowledge of Latin enabled him to comprehend the French much more readily than he would have done. The experiment shows that, in his case at least, there is no virtue in thumbing unnecessarily a dictionary.

My third experiment was to test, quantitatively and qualitatively, the scheme of preceding the foreign term by the action or the object it represented, i. e., pursuing with adults the system that nature employs with the child. With adults it was found that no perceptible advantage was gained by such a method. Persons who are eye-minded do equally as well, when the German word is associated with the English word through the eye, as they do when it is associated with the object, or action, through the ear; while those who are distinctly ear or motor-minded produce better results by the latter method. It came out very strongly in this experiment, that no one method is

adapted to mankind generally, and it must be concluded that it will be a serious pedagogic error, to seize upon a single method and employ it exclusively in mass instruction. Individual peculiarities must be taken into consideration by the successful teacher. With children, however, the results are strongly in favor of employing nature's methods.

A very interesting piece of work is being carried on successfully in the Eliot School, Boston, under the able principalship of Mr. G. S. Webster. This school is situated in the midst of the foreign population, and one of its chief functions is to teach this foreign element the English language. The method employed is virtually that recommended by M. Gouin, e. g., the employment of the motor element, by means of which all exercises are illustrated by the corresponding action. With this motor element is associated the English; as the children progress, charts and books are brought into play, and they are required to give in their own language the substance of a sentence or paragraph. So successful have been the efforts of this institution that there can no longer be any doubt that some such method is the proper one for the youthful learner. Two things have come out very clearly in the experience of this school, viz.: Adults learn a language (spoken) much more slowly than children, and the most rapid acquisition on the part of the children takes place between the ages of eight and twelve.

My thanks are due to President Hall and Dr. Burnham for their generous suggestions and aid, and to Mr. Webster for his kindness in supplying me with information concerning the Eliot School.

## Bibliography.

The following writings will be found helpful to the student of Language Methods:


1. Abel. Linguistic Essays. Houghton, Mifflin & Co., Boston.
2. Ascham. The Schoolmaster. Geo. Bell & Sons, London.
3. Laurie, S. S. John A. Comenius. Kegan, Paul, French & Co., London.
4. Fitch. Lectures on Teaching. MacMillan & Co., New York.
5. Whitney. Language and the Study of Language. Chas. Scribner's Sons, New York.
6. —— Methods of Teaching Modern Languages. D. C. Heath & Co., Boston.
7. Laurie, S. S. Lectures on Linguistic Method. MacMillan & Co., New York.
8. Müller, Max. Science of Language.
9. Gildersleeve. Essays and Studies. Murray, Baltimore.
10. Colbeck, C. On the Teaching of Modern Languages in Theory and Practice. Cambridge, 1887.

Franke, F. Die Praktische Sprachenlernung. Leipzig, 1890.

11. Comfort, G. F. Modern Language in Education. Syracuse, N. Y.
12. Das Humanische Gymnasium, Heft 3 und 4. Heidelburg.
13. Stiehler, E. O. Zur Methodik des Neusprachlichen Unterrichts. This contains an excellent Bibliography. Marlburg.
14. Franke. Die Praktische Sprachenlernung auf Grund der Psychologie und die Physiologie der Sprache dar gestellt. Heilbronn.
15. Klotzsch. Method des Fremsprachl. Unterrichts. Borna.
16. Passy. Le Français Parlé. Heilbronn.
17. Perthes. Zur Reform des Lateinischen Unterrichts. Berlin.
18. Pfril, Graf. Unser Hoheres Schulwesen ist schwer Krank. Breslau.
19. Victor. Der Sprach Unterrichts Muss Umkehren. 2 aufl. Heilbronn.
20. Steinthal. Charakteristik der Hanptsächlichsten Typen des Sprachbaus. Berlin.
21. Suret. On the Practical Study of Language. Trans. Philo. Society, 1882–84.
22. Gouin. The Art of Teaching and Studying Languages. Geo. Phillip & Sons, London.
23. Hölzel. Wandbilder fur den Anschaungs und Sprachunterrichts. Wien.
24. Volcker. Der Fremsprachliche Unterricht ist mit dem Französischen zu beginnen. Berlin.
25. Hummel. Der Wert der Neueren Sprachen als Bildungsmittel. Weimar, 1879.
26. —— Lehrbuch der Fanzösischen Sprache. Dr. Ph. Rossmann & T. Schmidt, 1892.
27. Walter. Der Französische Klassenunterricht. Weisbaden, 1890.
28. Baumeister's Handbuch. Drilter Band. 2 Abteilung. Munchen, 1895.

# COURSES OF STUDY IN THE ELEMENTARY SCHOOLS OF THE UNITED STATES.

By T. R. CROSWELL, Scholar in Pedagogy, Clark University.

This paper aims to give the status of instruction in the elementary school, as it appears to the writer, after a study of courses and extended correspondence with teachers in all parts of the country.

The treatment has fallen into four almost distinct parts: (1) the *Legal Requirements*, treating of the beginnings of our present curricula, and of the influence upon them of the State laws; (2) the *State Courses*, a description and comparison of the uniform courses which have been prepared by a majority of the States; (3) a brief section on *Ungraded Schools* based on a study of daily programmes of recitations; (4) and a description and comparison of *City Courses*.

## I. LEGAL REQUIREMENTS.

*Growth of the curriculum.* Without attempting to enter into an historical study of the evolution of the curriculum of the elementary schools in this country, it is worth while to note which branches have crept in during the period of our national existence, and to consider some of the influences which have tended to bring about the present diversity.*

At the close of the last century the curriculum was almost wholly confined to English (reading, spelling, grammar, penmanship), and to arithmetic. The Bible was the principal book[1] used in reading, although the psalter, catechism, and later the New England Speller, were also used.

Noah Webster states that the introduction of his *Spelling Book*, in 1783, "produced a great change in the department of spelling," and that "spelling was taught with more care and accuracy for twenty years after that period than it has since the introduction of multiplied books and studies."[2] Grammar, if taught at all, was limited to learning such rules as were to be found in the spelling books of the period. Penmanship was

* For a fuller account of the elementary school at the beginning of the century consult the interesting historical articles by Rev. A. D. Mayo and R. M. Johnson in The Report of the Commissioner of Education, 1894-5, Vol. II.

[1] H. Barnard: Educational Development, p. 369.

[2] *Ibid.* p. 367.

often limited to evening lessons conducted by itinerant teachers,[1] or at best the teacher showed how to nib the pen, and set copies for the older pupils.[2] No child was considered advanced enough to begin this art until he had passed several years in school.[2] Mathematical instruction was confined to "ciphering." There were few or no text books, and the teacher usually "set the sums." The work was done upon paper, as slates were not used in the common schools until after the period of the Revolutionary War.[3]

In Pennsylvania, "to cipher beyond the 'rule of three' was deemed a notable event and mere surplusage." In some localities arithmetic was taught only in the evening schools.[4] Geography and history were as yet hardly considered as a regular part of the curriculum.[5] In some parts of the South, within fifty years, all instruction that the children received in these branches, was from itinerant teachers, who gave a series of lessons for a fixed sum. At the beginning of the century nearly all branches were thus taught in the Southern States by teachers who would locate for a time at different plantations.[6]

Gradually the number of studies has increased, until we now find a pretty uniform nucleus sanctioned by law, by general usage, or by both. This nucleus, as determined from statutory requirements, includes:

READING, required in all States but R. I. and Wyo.;
SPELLING, " " " " " " Wyo., and N. H.;
WRITING, " " " " " " " Me., and Miss.;
GRAMMAR, " " " " " " " Fla., Ala.;[7] Penn.,[8] and Miss.;[7]
ARITHMETIC, " " " " " " and Wyo.;
GEOGRAPHY, " " " " " " Wyo., Del., and Miss.;
HISTORY, " " " " " " " N. H., Ct., N. Y., N. J., Del., Va., Ga., Tex., Neb., Wis., and S. Dak.;
PHYSIOLOGY or TEMPERANCE INSTRUCTION, required in all but Va., Ga., and Ark.

In addition to this nucleus the following studies are also required:

*Civil Government*, in Md., W. Va., Ky., Mo., Tenn., S. C., Mich., Wis., Kan., Colo., and Calif.;[9]

---

[1] MacMaster: History of the People of the United States. Vol. II, p. 569.
[2] Burton: The District School as It Was.
[3] Barnard: Educational Development, p. 367.
[4] *Ibid.* p. 369.
[5] and [6] *Ibid.*
[7] Not required in examination for third grade certificate.
[8] See below "Composition and Language."
[9] May be taught orally.

*Book-keeping*, in Me., Md., W. Va., Minn., Wash., Ariz., and Calif.;[1]
"*Elements of Science*," etc., in Me., Vt., Ill., and Colo.;
*Drawing*, in Mass., Vt., Md., Ariz., and Calif.;
*Music*, in Md. and Calif.;
"*Language*," in Miss. and N. Dak.;
"*Composition*," in N. Y., Penn., Tex., Ky., Kan., and Neb.;
*Geometry*, in Md.;
*Algebra*, in Md.;
*Physics*, in Colo. and Nev.;
*General History*, in Md. and W. Va.;
*Kindness to Animals*, in Me. and Wash.;
*Defining*, in N. C.;
*Good behavior*, in Mass., Md., and S. C.;
*Domestic Economy*, in Md.;
*Agriculture*, in Me. and Md.;
*Orthoëpy*, in Wis.;
Attention to *Morals*, *Ventilation*, etc., in Ore., Wash., Mont., and others;
"*Such other studies*," as the local school board may deem best, in Me., N. H., Mass., Ct., Del., S. C., La., Tex., Nev., Wash., and Ariz.

These studies represent the minimum requirement of the law: special laws on "the studies to be taught" being found in about one-third of the States; and in the other States, where the examinations of the teacher differ according to the grade of the certificate, the qualification for the lowest grade being taken.

Instruction in the French or German language in localities where the foreign population reaches a certain proportion is required by several States.

Some of these new studies, for example, language and composition, are either the same branches under different names, or the name implies a broader development or a different conception of the aim of the instruction; but the greater number are relatively distinct from anything in the old curriculum. In a fourth of the States, although certain studies are not prescribed by law, their introduction is optional with the local school board, e. g., in Massachusetts, algebra, vocal music, agriculture, sewing, the use of tools, and cooking. A table[2] based upon the qualifications for first and second grade certificates greatly increases the number of States prescribing the studies given above, and adds other branches, as physical geography, chemistry, zoology, literature and current topics.

---

[1] May be taught orally.

[2] Such a table will be found in the appendix to Fellows' recent book, *A Study in School Supervision and Maintenance*. Topeka, 1896.

Some of the variations from this legal nucleus are worthy of notice. Thus in Rhode Island until 1885 there was absolutely no specification[1] as to the branches to be pursued; but in that year the activity of the W. C. T. U. forced the State to adopt a statute requiring "the School Committee to make provision for instruction in physiology and hygiene, with special reference to the effects of alcoholic liquors, stimulants, and narcotics upon the human system." Physiology and hygiene is also the only study prescribed by the Statutes of Wyoming. This "shall be taught,"[2] and every teacher must be examined upon it before receiving a certificate.

Little Delaware has the next lowest requirement. The law concerning qualification reads: "They (the school committee) shall employ no teacher whom they shall not have just grounds to believe of good moral character, and well qualified to teach reading, writing, arithmetic, and English grammar, and such other branches of knowledge as they may deem necessary to be taught in their district. They may employ a female teacher (in respect to whom the qualification of reading and writing may be sufficient) when, and for such part of the year, as they may deem it best to do so."

There are two sections in the New Hampshire Statutes which illustrate the indirect way in which a law specifying studies may be framed, and also the indefiniteness and elasticity of such laws. The first of these, on the raising of money, reads, "The sums so raised shall be appropriated to the sole purpose of maintaining public schools within the town for teaching reading, writing, English grammar, arithmetic, geography, and such other branches as are adapted to the advancement of the schools."[3]

The other law, which defines in part the duties of the town school board, is as follows: "They shall prescribe in all mixed schools, and in all graded schools above the primary, the study of physiology and hygiene with special reference to the effects of stimulants, alcoholic liquors, and narcotics, upon the human system, and may prescribe the study of algebra, geometry, surveying, book-keeping, philosophy, chemistry, and natural history, or any of them, and other suitable studies."[4]

Virginia shows a conservative spirit: "In every public free school, shall be taught orthography, reading, writing, arithmetic, grammar and geography; and no other branches shall be

[1] R. I. School Report, 1894, p. 268.
[2] Laws 1887, Sec. 3969.
[3] N. H. Public Statutes, 1891, Chap. 88, Sec. 3.
[4] N. H. Public Statutes, 1891, Chap. 92, Sec. 6.

introduced except as allowed by special regulations to be devised by the Board of Education."[1]

Maryland heads the list with twenty-one separate studies.

"In every district school there shall be taught orthography, reading, writing, English grammar, geography, arithmetic, history of the United States, and good behavior; algebra, book-keeping, natural philosophy, the Constitution of the United States, the Constitution of the State of Maryland, and the history of Maryland; vocal music, drawing, physiology, the laws of health, and domestic science shall also be taught; and the elements of agricultural science may in the discretion of the State Board of Education, be added to the branches required to be taught in the State Normal School, and in the public schools of the various counties of this State. Whenever the Board of District School Trustees shall deem it expedient, and in districts where there is a considerable German population, the Board of County School Commissioners, are authorized to cause the German Language to be taught, if they shall think proper to do so."[2]

*Tendencies of Statutory Requirements.* The old curriculum appears to have been based almost wholly on what may be called the social and economic needs of the individual, or at least upon what was conceived to be these needs. That this assumption is correct would appear from the fact that commonly the pupil himself or his parents decided what branches he should pursue. With the increased facilities of communication and the accompanying culture, different standards of living have arisen, bringing new wants; and the individual has demanded that new subjects be taught. But except for geography, history, increased work in arithmetic, and possibly physiology, these demands have not been general; as a rule they have been from a class in society; often they have been confined to a single State, or to a few States; thus, until recently, "practical entomology" was among the studies required in the schools of California; general history is required in Kentucky and West Virginia; defining in North Carolina; domestic economy, in Maryland; and kindness to animals ten minutes per week in Maine and in Washington.

Closely allied to the utilitarian demand of the masses has often been the influence of prominent educators, through whose judgment, guided by personal observation and by the study of other systems, such branches as calisthenics, music, drawing, and nature study, have been widely introduced without the support of legal enactment. Thus the growth of the curriculum

[1] Code of Va., 1887, Sec. 1497.

[2] Public School Laws of Maryland, 1894, Chap. 7, Sec. 39.

has been fostered by an imitation of other systems, and also from a slightly broader conception of the needs of the individual.

A further influence, which, for the lack of a better term, may be called sentimental pressure, has been felt in all sections of the country. This influence appears in two noticeable forms: first, the political or patriotic expression is seen in the laws, of more than a dozen States which require civil government and in about half as many which require State history. But the most marked example of this sentimental pressure where a single idea has left its impress upon the curriculum, is seen in the wide and rapid spread of statutory requirements for temperance instruction.

Looking back over this century of growth one cannot fail to be impressed with the tendency toward the multiplication of subjects in the curriculum. Not less marked is the bare utilitarian basis upon which these subjects rest, and perhaps most marked of all is the independent position which each branch holds.

*Effects of Statutory Requirements.* It is possible to trace out the effectiveness, and results of these laws to some extent. Thus in answer to the question, "Is your course regulated, or prescribed, or restricted, in any way by law or other agencies," in the returns from about one-third of the cities the State law was the only thing mentioned as a restriction. Occasionally the local board was also felt as an interference. On the other hand, a fourth of the returns stated emphatically that there were no restrictions; this answer often came from a State which had a definite law on "the studies to be taught;" and sometimes the cities in the same State were about equally divided upon the question. A few of those who answered, "No," qualified it by some such statement, as "except in a few studies." Temperance instruction was the only subject specified.

Several of the State courses are definitely based upon the studies which the State law requires, and do not outline work in other subjects, although they may suggest work in them; while in other States the courses are not limited by the studies so required.

From other sources we get a few glimpses of the effect of these laws upon the rural schools. For example, in Connecticut,[1] investigations among such schools often showed a neglect of geography, and history, though not an ignoring of the law. Temperance instruction was quite generally given, though the results were not always satisfactory to the inspectors. The schools of the neighboring State of Rhode Island, where only one study

[1] Report, Conn. Board of Education, 1896.

(physiology) is prescribed, teach practically the same branches[1] as those in States which are more strict from a statutory standpoint. On the other side, we have a bit of positive evidence from West Virginia, where general history has been widely introduced into the schools by legal enactment; and of negative evidence, from the apparent neglect of writing in many of the rural schools of Maine. The latter is one of the few States which does not prescribe penmanship, and in many of its rural schools no period[2] is assigned in the programme for formal instruction in this subject.

The general inference from these returns is that in most cases the laws are practically dead letters; as the studies in the nucleus would be taught anyway, and others, not prescribed, are also almost universally included in the city courses; while on the other hand certain studies prescribed by some of the States are not taught, especially in the smaller schools. The latter are mostly the exceptional studies, and their neglect may be due either to the absurdity of the requirement, or to local difficulties which make the teaching of them impracticable.

## II. State Courses of Study.

*General Description.* At the time of writing twenty-four States have uniform courses of study, Kansas has such a course in preparation, and the State Board of Education of Mississippi "is authorized to provide a course, but has not deemed it advisable to do so, because of the varying terms in the counties." To give an adequate description of all these courses, it would be almost necessary to describe each separately. Perhaps the most essential characteristic, found in all, is an attempt by some sort of organization and system to make the work of the school more rational, more definite, and less wasteful. Every one of these does more or less minutely outline the work to be done. But the manner of presentation varies greatly. Thus in Kentucky the course is printed in tabular form on one side of a sheet of paper less than nine by sixteen inches. Several[3] other States have courses which are briefly outlined, and cover but a few pages. The more common form is a pamphlet of thirty to sixty pages, the most of which is taken up by an outline of the work to be done in the various branches, often accompanied by suggestions of methods of instruction. The rest of the pamphlet contains suggestions and information for the carrying out of the course, e. g., methods of classification and examination. The longest course of all is that published by

[1] Rhode Island School Report, 1894, p. 268.
[2] See Table II.
[3] Ohio, Nev., Mont., Utah.

the Massachusetts Board of Education, the work and method is here outlined for each grade, and covers in all one hundred and twenty-two pages.

But while this purpose of systematizing the work of the rural schools is the most widely characteristic feature, it is not the only aim nor that most worthy of notice. Here is what some of the courses say for themselves:

Michigan calls it an "attempt to effect a more thorough organization and greater uniformity in the schools of our rural districts."

The New York Manual reads: "In this manual no attempt is made to give in detail all the methods to be pursued, but only to present a general outline of the plan to be pursued."

Colorado tells us that "It is not expected that all the work outlined in the Course of Study will be done as outlined, but teachers are expected to leave their mark in the result. . . . The Course of Study is simply intended to help, to guide."

In the introduction to the Washington Course of Study we find this explanation of the aim of the revising committee: "The Board of Education has attempted to work out the course more in detail and to designate just what should be attempted in each month of the year, leaving ample scope for the teacher in the selection of her own methods of securing the desired end."

The introduction to the Iowa manual reads: "In preparing this Course of Study, the aim throughout has been, *First:* To provide a plain, practical, and progressive outline, which if followed carefully will give the pupils a thorough common school education and secure a symmetrical development of their intellectual powers. *Second:* To unify the work of teachers and superintendents throughout the State. . . *Third:* To introduce the common school branches only. *Fourth:* To simplify classification and regulate gradation and promotion, thereby making the work of the teacher lighter, but more systematic and effective. *Fifth:* To divide the entire course into definite portions, so that a record of the progress and standing of each pupil may be preserved, and confusion and loss of time usually resulting from frequent change of teachers avoided."

The course from North Dakota makes among others the following claims:

"1. It (the course of study) is simple, clear, concise, comprehensive, logical, progressive, and *suggestive* rather than *dictatorial.* 2. It aims to give sufficient 'limitations' both as to time employed by the pupil, and the amount to be studied in this time. . . . . 5. Unlike most courses, it allows the teacher to *think* . . . . to study the child, to keep him constantly before the course as greater than the course; to

judge and adjust his work according to his needs." The *Manual and Uniform Course of Study for the Elementary and High Schools of Indiana* is a scholarly and thoughtful attempt to present a higher ideal of their work to the teachers of the State. It is certainly a sincere attempt to accomplish what is stated indirectly as its purpose, i. e., "The course of study is made for the pupil, not the pupil for the course." The teacher's standpoint is: "What can I do for the pupil in this school year with the subjects given in the course of study? The problem is to set before him pure ideals of life and cause him to be dominated by them."

Nearly a third[1] of these State courses were first published through the influence of a State Educational Association; most often that of the department of County Superintendents. This appears to be the natural genesis of the State course; often there were courses of study in several counties before the general movement for the entire State. In[2] some instances the course of study was drawn up and published for several years by the association, before it was turned over to the State. In Illinois, the first edition of 25,000 copies, published by the State in 1889, was insufficient to meet the demand; and two rival publishing houses began to print it. In 1893, when the revised edition was ready for the press, the State appropriation for public printing being low, the educational printers of the State were given free use of the manuscript, and one of these printers now publishes the course, supplying county superintendents in Illinois and other States.

More generally the State courses are prepared by the State Superintendent or Educational Department, assisted by prominent educators in the State, and are published by the State. In ten States they are prepared in accordance with law.[3] Thus the law of Kentucky reads that the State Board of Education "shall from time to time select and recommend a proper course of study;" the State Superintendent of Nebraska is "authorized" to publish, and is "held responsible for the course." In other States the State Superintendent "is required to prepare a course of study," or the course of study is published "by authority." The Maryland course forms a part of the By-Laws of the State Board of Education.

In addition to the demands of the county superintendents and other directors of education, it would seem that the recent general agitation of questions relating to the curriculum may have had its influence, for none of these States has had a

[1] Colo., N. Y., Mich., Minn., Ohio, Ill., Nev.
[2] Ind., Mich., N. Y., Colo., So. Dak.
[3] Vt., W. Va., Ky., Wis., N. Dak., Mont., Wash., Nebr., Me., Md.

course longer than fifteen years, though there may have been spasmodic attempts in some States at an earlier period.[1] Ten years ago Massachusetts, Washington, Wisconsin, and Minnesota alone published them. Colorado, Nebraska, Illinois and Kentucky had also adopted courses prior to 1890; and since that date sixteen[2] more have been added. The years 1893 and 1895 are especially noteworthy in the history of the State course. During the former several adopted a course for the first time, and there was a noticeable tendency in other States to revise. In the latter year Vermont adopted a course of study for both the elementary and the high school; the State authorities in Montana, Missouri, and Maine, and the Educational Association in Kansas took action toward publishing State courses of study for elementary schools; in New Hampshire a bill authorizing the publication of a State Course of Study passed the legislature, but was vetoed by the Governor; in California much of the educational interest of the years centered around the work of a Committee of the Educational Council of the State, which was appointed to consider the question of a uniform course of study for the elementary schools.

*The Studies.* An examination of these courses reveals a marked utilitarian tendency both in the selection of the subject matter and in the methods used. Still this tendency is not so universal as with the studies legally required. Undoubtedly the school laws themselves have done much to produce this result in the State courses. Imitation of local courses has also helped to give this utilitarian stamp. This tendency is emphasized by the limitation of history to a collection of facts relating to the United States alone; and also by the fact that bookkeeping appears as a separate study in nearly one half of these courses. However the subjective basis in the selection is not wholly ignored, though greatly overshadowed by the objective. Traces of the former are found in the statements of the purpose of the course and in the methods suggested. The courses from Indiana and North Dakota show this side strongly. Certain of the studies also reveal this influence; thus nature study, under some name, is found in two-thirds of the courses; music and drawing in one-third. There is also an increasing emphasis placed upon supplementary reading, both for information and for the formation of a taste for good literature.

As perhaps will be anticipated there is little to be said in regard to correlation. In Indiana there is an attempt to con-

[1] As a brief course in Illinois about 1879, and county courses in West Virginia and Indiana as early as 1873.

[2] Mich., W. Va., Iowa, Ind., S. Dak., Nev., N. Dak., Conn., Ohio, N. Y., Utah, Mont., Md., Vt., Me., and Mo.

centrate the work about the child. Taking the branches required by the State law, which happen to be just the bare nucleus found throughout these State courses, the course adapts them to the child, in the various grades, according to the spiral plan. North Dakota has a course which smacks of the Herbartian School. There is co-ordination about three cores, not very unlike those suggested by President de Garmo in the last chapter of his book on Herbart. The first of these cores includes Form lessons and geography; the second, Number lessons and arithmetic; the third, Language lessons and history. There is little attempt at correlation in any of the other courses, beyond a union of spelling and language with reading, especially in the lower grades, and some use of supplementary reading.

The following eight studies are found in every one of the twenty-four State courses of study; 1 Reading, 2 Spelling, 3 Writing, 4 Language and Grammar, 5 Arithmetic, 6 Geography, 7 U. S. History, and 8 Physiology and Hygiene. If these are compared with those considered as the nucleus of the legally required studies, the only difference is that "*Language* and Grammar" are found, where before "*Grammar*" alone was mentioned. Though this appears like a slight difference, it seems to be very significant in that it suggests a vital change in the conception of the purpose of this branch.

However the nucleus of the State courses is not confined to these eight studies. To them should be added Civil Government, which is found in all except Massachusetts, Ohio, Vermont, and Montana; and Drawing, in all except Ohio, Indiana, West Virginia, Kentucky, and Montana.

Of the additional studies the most common are Nature Study and Book-keeping; the former, varying in content and under five different names, appears in sixteen courses; the latter, in nine. Music is in eight; Algebra in seven; State History and Calisthenics, each in six; Morals, in four; Physics and Physical Geography, each in three; and Geometry in two courses; Botany, Zoology and Physics each occupy one year in a three year course in science outlined for the State by Prof. Frank H. McMurray, formerly of the University of Illinois. Massachusetts and Vermont emphasize instruction in Good Behavior.

An examination of the *Course of Study for the District Schools of Michigan*, in many ways the most typical course, will give a very fair idea of the general sequence of studies.

In Indiana alone do *all* the branches of the course appear in every grade, though those of the mother tongue, and arithmetic, as a rule, extend throughout in all the courses. There are, however, many exceptions. Thus, in the last year, *reading* takes the form of literature in Indiana and Washington; is dropped in Michigan and Nebraska; while in New York, during

# TABLE I.

MICHIGAN DISTRICT SCHOOLS, 1895.

| GRADES. | I. | II. | III. | IV. | V. | VI. | VII. | VIII. |
|---|---|---|---|---|---|---|---|---|
| Reading | x | x | x | x | x | x | x | ..... |
| Spelling | x | x | x | x | x | x | x | x |
| Writing | x | x | x | x | x | x | x | x |
| Language | x | x | x | x | x | x | ..... | ..... |
| Grammar | ..... | ..... | ..... | ..... | ..... | ..... | x | x |
| Arithmetic | x | x | x | x | x | x | x | x |
| Geography | ..... | ..... | ..... | x | x | x | x | x |
| History | ..... | ..... | ..... | ..... | ..... | ..... | xxx | xx |
| Civil Government | ..... | ..... | ..... | ..... | ..... | ..... | ..... | * |
| Physiology and Hygiene | ..... | x | x | x | x | x | x | x |
| Drawing | x | x | x | x | x | x | x | x |

The crosses (x) indicate the years during which a study appears in the course.
The braces (⌒) means that the studies so included are considered as one study only.
* Takes the place of history the last term.

the last two years, there are only one or two recitations, and in Connecticut only one-half hour per week of oral reading.

*Spelling* is not mentioned in the work of the last two years in New York, and in several States takes on the form of word analysis.

*Language* study without exception extends throughout the entire elementary course. The last two years are commonly devoted to the formal study of grammar from a text-book; in Illinois it is so for the last four years, and in North Dakota, Montana, Vermont, and Utah for the last three.

Excepting in North Dakota, where it is mostly incidental throughout, *writing* appears as a formal drill. This drill with the copy books extends from the beginning to the end of the course, except in several States where writing is incidental during the first two or three years.

*Arithmetic* is in all grades of all the courses save one. In Washington algebra and book-keeping take its place during the ninth year. The first two or three years are devoted to number work, the Grube system usually being adhered to. In North Dakota book-keeping is taught in connection with arithmetic, while the Connecticut course makes provision for both book-keeping and geometry.

In seven instances the study of *geography* is outlined for the entire course; usually it is introduced during the third or fourth year, and extends over four or five years. Twice it is omitted the last year of the course; and three times it is interrupted for a year at the time when U. S. History is begun. By means of stories and supplementary reading in the lower grades, *history* is made to form a part of the work of every year in five

States. In the others it begins once in the third year;[1] once in the fourth;[2] four times in the fifth;[3] four times in the seventh;[5] twice in the eighth;[6] and once in the ninth.[7] When once begun, it remains a part of the course to the end.

*Civil Government* is usually associated with the latter part of the study of U. S. History. Occasionally it takes the place of history during the last year of the course. *Drawing* is outlined for all grades in twelve courses; for the lower part of the course in three instances, and the higher part in two. *Music* and *calisthenics* are usually considered among the general exercises of the school. *Nature study*, general Lessons, Observation lessons, etc., often extend through the course, though the greatest stress is upon the early years. In Illinois the science work is for the last four years, and also for the advanced course (9th and 10th years). *Book-keeping* appears once in the fourth and fifth years, but is usually along with the other secondary studies, algebra, geometry, physical geography, and physics, reserved for the closing years of the elementary course. In Nebraska, New York, and Washington certain of these studies are elective.

*Means of Enforcing the Courses.* As only ten of these twenty-four courses are prepared in accordance with law, and in no State is the course strictly followed, it will not be out of place to mention some of the means used to make the State course of study effective. Nearly all of these States have county superintendents, and several courses emphasize their duty in regard to the course. Thus one State superintendent writes in the introduction to his course: "It is hoped that each school commissioner will advise his teachers to study and use the Manual and Classification Register, instruct them in its use, insist upon careful reports, and make life a burden to those who are too careless or lazy to attend to the work."

In some of the States the Summer Institute work is based largely upon the course of study. In a few, at least, the larger scholars are supposed to be somewhat familiar with the course. The regulations of Colorado require that a copy of the course shall always be in the school room.

The work of the county superintendent is supplemented by various methods of gradation, and frequently by systems of examination and registration. Twelve States have as many grades as school years. Thus Massachusetts and New York have nine grades each; while ten[2] other States have eight each. Two of these, Colorado and Minnesota, formerly attempted

---

[1] Mont. [2] Wash. [3] Iowa, Neb., N. Dak., Md. [4] Ill., Nev., Utah. [5] W. Va., Mich., Colo., Mo. [6] Ohio, N. Y. [7] Ninth.

[2] Iowa, Ohio, Ind., Mich., Minn., Conn., Colo., Nev., S. Dak., Utah.

to make five artificial grades in the eight year course; Kentucky and Maine alone retain a five grade course. In Nebraska the school period is divided into "4 courses;" the Primary and Intermediate, each into two classes, covering one year each; the Grammar, two classes of one year each; and the Advanced, one year. North Dakota has four "Grades" of two years each. In five States three grades are made. Thus in Montana eight years are divided into a Primary Grade of two years, and an Intermediate and a Grammar Grade of three years each. The other four States have nine year courses. In Wisconsin there are "Three Forms" of three years each. The purpose of this gradation is not "to regulate one pupil's progress by that of another; but to require each pupil to make equal progress in all branches." "A Form is a body of related work, not a group of pupils." Washington has nine years of nine months each, divided into a Primary Grade of two years, an Intermediate Grade of four, and a Grammar Grade of three. West Virginia makes a similar arrangement of the two lower grades, although allowing only six months to the year, but the "Upper Grade" means either three years of six months or two years of nine months. Vermont divides her nine year course into three "periods" of three "grades" each. In Illinois the course recognizes only two grades—Primary and Grammar, each of which is divided into four years. The principle of alternation of studies, which here means alternation by years rather than by days, is relied upon to greatly reduce the number of studies. In no other State is this principle made so prominent. The most of the work in the Missouri course is outlined to be taken in seven years, although an eighth "year" or "grade" is added. "Where properly organized a large percentage of the country schools will be found to have no eighth grade."

This gradation and classification of the individual school is often left to the teacher. In other States some system of examination is either required or recommended; required directly in New York, Colorado, Washington, Minnesota, and South Dakota; required indirectly in North Dakota and West Virginia. In the last two suggested tests appear at the close of the work outlined for each grade, these courses being prescribed by law. In Nebraska, Michigan, Indiana, Illinois, and Iowa, examinations for promotion are strongly recommended and to some extent carried out. Sometimes the teacher conducts the examintions at the close either of each term,[1] or year,[2] or grade;[3] and keeps a record of the work of the pupils. Then the county

[1] Ind.. Ill., Wash., Mich., Colo., Neb.
[2] Iowa.
[3] Wis., N. Y.

superintendent gives certificates of promotion, and at the close of the course holds, usually at some central place, a "final examination," granting diplomas to the successful candidates.

*Extent Followed.* Though it is impossible to ascertain to just what extent the State courses are used in the schools, it is evident that the extent varies greatly in the different States, owing to the different degrees in which the course is adapted to local conditions, and especially owing to the means used to enforce it. In some States[1] the courses appear to be used very widely; while in others they have very slight influence.

Among the duties of the State Board of Education of Kentucky, is that it "shall prescribe and publish a public graded course of study for the common schools, specifying the order of studies and the time allotted to each, which course of study shall be observed by the teacher, and enforced by the trustees."[2] To meet this requirement the Board has prepared a course, and a daily programme, "for the great mass of our students, especially in the country districts.[3] "Some cities have power to add to the course, but none to subtract."[4]

The State Superintendent of West Virginia writes that the State course is "used in many counties of other States than this. It is the basis of our school work, and almost the entire teaching force of the State is now engaged in an effort to grade according to this plan."

The present superintendent of Wisconsin speaks highly of the State course: "District boards and even teachers in the country schools may modify the elementary course of study for the common schools. This course is, however, so comprehensive, and has so long been made the basis of institute work in the institutes of this State, that wherever it is followed at all, it is followed quite closely. Public sentiment is strongly in favor of the common school course, and it is now almost unanimously approved by teachers and school boards."[5]

"In some towns," in Massachusetts, "the course for elementary schools, prepared under the direction of the Board of Education, is the authorized course, and is closely followed by teachers; in other towns it is used as a basis of work required, more particular directions being given by the school committee or superintendent."[6] Some superintendents use it as the basis of their own courses. There are, however, school committee men and even teachers in the State who do not know that there is a course prepared by the State.

---

[1] Especially in Illinois, Kentucky and Wisconsin.
[2] Code 1894, Sec. 4382.
[3] Letter, State Supt. [4] *Ibid.*
[5] Letter.
[6] Mass. Report, 1896, p. 227.

It is quite probable that the uniform course for Illinois is having more *direct* influence upon the schools than any other at the present time. It is in use in two-thirds of the counties of the State. Though there are less than 13,000 teachers of ungraded schools, and only about 25,000 in the whole State, there have been sold since 1893 nearly 45,000 copies of the State course. It is very common for the advanced pupils to have copies of their own and to make use of them when compelled to be absent from school.

The system of monthly examinations also, has a strong influence upon the use of the course. In many of the counties the superintendents are accustomed to provide their schools with questions, made out by the publisher of the course, Mr. C. M. Parker, and revised by them. Mr. Parker, who has kindly furnished much of the information concerning the Illinois course, believes thoroughly in the value of these examinations to both pupils and teachers. He states that they often lead the teachers to adopt better methods. He illustrates the influence of the system upon the pupils and parents by account of a final examination which was taking place at the time of his writing (Feb., 1896).

"This work," he writes, "also takes hold of the parents and creates a healthful, educational sentiment. To-day I went to the 'Final' examination held at our high school building. During the past two days the weather has been rainy and gloomy, and the Illinois mud is at its worst. Our roads are in a terrible condition; but one hundred and fifty-five girls and boys are at the Final examination. They are from all parts of the county, some having to come twenty miles or more in vehicles. I noticed quite a number of farmers waiting to take their children home. . . . . One county superintendent says that ten times as many pupils of his county are in attendance at high schools and colleges as were before the introduction of the present plan."

The fact that in about half of the States having a uniform course of study some examinations, connected with it, are either compulsory or recommended, show the strength of the feeling that there must be some system to enforce its general use. This feeling is further emphasized by the positive way in which some county superintendents have expressed themselves to the writer.

On the other hand, there is little question but what a course which is not so enforced, will not be closely followed.

Mr. Parker speaks of one prepared in 1879 for general distribution among the teachers of Illinois. "At this time I was teaching a country school and received a copy. In my eight years' work in institutes, among hundreds of teachers, I have

never found as many as ten teachers who have any remembrance whatever of the course. I have never found one boy or girl who knew that his education was modified in any way by that course."

A college president in Indiana writes: "As to the uniform course of study, I can say that it has been my experience that few teachers make more than a pretence of following it. Many neglect it altogether, except when the superintendent makes inquiries. Of course the uniform course does good, but it is not an unmixed blessing." The course is used, however, with good results in many of the towns as well as in the rural district of Indiana.[1]

The complaint that the course is not followed faithfully by the teachers is a common one. It is true of the county courses in Florida; in Vermont the State course is not followed closely for lack of "county superintendents;" in Minnesota the course "enters too much into detail for *rural* schools," so that it "is not followed closely by more than 10% of the schools;" West Virginia finds that "irregular attendance" and insufficient supply of text books interfere. If the number of pupils who follow a course closely be the highest test of its value, then a system of supervision by examination, such as is found in a few of the States, for its enforcement is the best system.

On the other hand it is possible that a teacher, capable of receiving any guidance and inspiration from a course, will not need such a system to compel her to follow a plan of work which will lighten her labors and unify the work of her pupils, provided there is a wider distribution of the course, so that its requirements and importance shall be well known to the pupils and to the parents. Such a circulation of the course would serve in part for supervision, and at the same time be a means of testing the real value of any course.

*Summary.* From what has preceded it is clear that there is at the present time an interest in the course of study of the rural school, an interest which has been very rapidly increasing during the past ten years. The study of these courses in the first place verifies the conclusion to which the study of the school laws led, viz.: That there is a tendency toward the introduction of many new subjects into the schools without as yet any adequate attempt to correlate them; and that their selection has been for the most part based on what are conceived objectively to be the *present* needs of society. Also, it appears that in the absence of any well defined principles for guidance there has been the temptation to copy the city courses. It is true that the majority of the State courses are prepared for the

[1] Letter, State Supt.

country school, not for the city. Indeed three States[1] have separate courses for the graded and ungraded schools; yet even they had at first published a *course common* to both.

Then the superimposing of the course upon the schools by the State educational department, and the system of examination and registration must lead to a centralization, which will undoubtedly be advantageous to some of the States, but in others is likely to produce an undue conservatism.

Further, these State courses show something of which there is not a trace in the statutory requirements, viz., an attempt to unify the work of the school: first by bringing the different branches into closer relations; and secondly, by taking a view of the course as a whole. A few courses also show the beginnings of a movement to consider not alone the branches to be taught, but even to allow the individuality of the child consideration.

## III. Ungraded Rural Schools.

A better understanding of the real conditions of the ungraded schools of the country would shed much light upon the question of what a State course should be; but, unfortunately, there are very few statistics concerning them. However some facts are accessible. In this section the reader's attention is called to the investigation made in Connecticut by Sec. Hine, and to a study of daily programmes from other States.

*Results of Schooling in Connecticut.* For some years Connecticut's able Secretary of Education has been making a series of very unique but most valuable investigations among the rural schools of his State. Five or six years ago Sec. Hine examined carefully the schools in New Haven County. "In too many schools," his Report says, "sometimes in all the schools in a town, children at twelve and over do not know more than children of eight can easily know." What is meant by this statement will be shown by the following example:

In one town there were 37 school children over ten years of age:

35 of these were unable to add correctly $\frac{1}{2}+\frac{1}{4}$, or $\frac{1}{3}+\frac{1}{6}$;

30 did not begin their sentences with capitals;

28 did not use the period;

*None* made use of quotation marks;

The penmanship of only 5 was "tolerable:"

"They had learned their letters and a few words, but could not read."

From these and similar results, Sec. Hine made certain inferences.

---

[1] Ind., No. Dak., Minn.

1. "*These children have not been well taught.*" And he adds: "Few teachers learn to teach penmanship, they lean upon the copy book."

2. "Many teachers do not possess the necessary practical wisdom and professional skill. They do not know how to so arrange courses and so to instruct as to do the most possible of what is worth doing in a given time."

In his Report for 1896 Sec. Hine gives a still more interesting account of searching investigations made in Tolland County, where the towns are all small, and most of the schools ungraded. It will be impossible to do more than to give a few of these results, following as closely as brevity will allow the phraseology of the Report.

First, attention is called to the *attendance of children at different ages*, as this has important bearing on the facts considered later in this paper. There were attending the elementary schools of the county 2,804 pupils, all between the ages of four and sixteen years.

The report states that many children enter school at four years of age, and most of them are there at five years; while during the sixth and seventh years there is as high an average as during any of the years of compulsory attendance from eight to thirteen.

What were the results of this schooling?

"Each child was tested separately as to his ability to *read* at sight. In some cases, notably in the case of very young children, the teacher's estimate of the child's ability was taken. The test was reasonable; it consisted, with very few exceptions, of reading matter from a reader of the same number in the series as that the child was using. There were present on the days of visits 2,800 pupils. One thousand seven hundred and eighty-one, or 64 per cent., could read at sight; 1,019, or 36 per cent., were unable to read.

"Not only children of 5 and 6, but most children of 7, and more than half of the children of 8 years of age were unable to read. About one-quarter of the children who could not read were more than 8 years old." The Report adds: "Very many children who are said to have learned to read, proceed uncertainly as if feeling their way. Words which they can use in their common speech they pronounce with hesitation and timidity. They also soon acquire an aversion to reading, because they are entirely unable to read readily stories which they comprehend and enjoy when read to them."

"Of 1,031 children over 10 years of age, in Tolland County, examined in the writing of English by Mr. Warren, 649 failed to begin sentences with capital letters. Of 205 children 11 years of age, 105 failed to use the period correctly. It would

be unjust to the teachers of the schools examined to suppose that they are not able to teach children to use capital letters and marks of punctuation. It is to be hoped that there is not a single teacher in Tolland County who is incapable of doing this. The truth is, that the teachers being left to themselves, have been spending their time in trying to do other work of much less importance, or else that they need some simple, practical suggestions as to the kind of drill best fitted to develop in the children the habit of writing simple English correctly."

In one small town "no children under 9 years of age were found able to add together ½ and ¼. Out of 82 children between 6 and 16 years of age, 68 were unable to add together ⅔ and ⅙. Out of 25 of these children (all over 10 years of age), 15 were unable to add together ⅔ and ⅙. Out of these same 25 children (of whom 14 were more than 13 years old), only one was able to accurately answer the question—'3 is what per cent. of 12.'"

"In the larger graded schools, where a course of study dominates, there is no neglect of *history* and *geography*, though it might be questioned whether *civil government* has its share of attention. In the smaller graded probably, and certainly in the ungraded schools where there is no course of study, civil government is practically unnoticed, history is neglected by an overwhelming majority, and geography, if it be ultimately studied, is not begun as soon as it should be."

*Elementary science*, *drawing*, *singing*, and *physical culture* appear only in the largest graded schools, and together with civil government are classed as "neglected studies."

*The Ungraded Schools of Maine.* A study of daily programmes for rural schools sheds some light upon the conditions which produce such results as those found in Connecticut. The presentation of this study is confined mainly to the results obtained from programmes of the daily recitations as conducted in twenty ungraded schools.

All but one of these programmes were furnished by teachers who were pupils in the State Normal School at Farmington, Maine, during the winter of 1896. They were obtained through the kindness of Principal Geo. C. Purington, who has a very wide acquaintance with the rural schools of the State, and vouches for the typical character of these programmes.

These twenty programmes represent half the counties in the State, and twenty different towns.

Most of the schools were in session sometime during 1895. Fall, winter, and summer terms are represented. The average pay of the teacher was $6.00 per week; the most which any teacher received was $8.00; the least $4.00 per week. The number of pupils in a school ranged from 13 to 36; the average

was 21.7. These schools are probably of somewhat higher character, and a little larger than the average of those in the majority of the Maine towns; yet the difference is slight. The Report of 1881 says: "It is safe to estimate that the schools in more than half the school districts in the State contain less than 20 scholars."

The age of the pupils attending these schools was from 3 to 22 years. In one school the pupils ranged from 3 to 15 years; in two from 6 to 22 years; in a small school of only 13 pupils, from 5 to 13 years.

Seven of the 20 schools had children of 4 years or less; fourteen of 5 years or less. . . ; while there were only two which did not have scholars below 7 years of age.

On the other hand there were to be found pupils of 21 years or more; eleven schools contained pupils who had passed their 18th birthday; while there were only five schools without pupils at least sixteen years of age. No teacher had less than 16 recitations per day; some had 25; the average was 22.

Objections may be raised to the figures presented, on account of the limited number of the returns; however, on account of the very representative character of the programmes, these figures appear to be of very great value as suggestive of the true condition of our ungraded schools in certain particulars upon which there are no other statistics. Where points of comparison are possible these statistics will be found to agree very closely with those in the recent Reports of the State. Though there is often quite a difference in the percentages, yet there is a surprising agreement with the general results found in a dozen other States. This statement is in harmony with that made last summer by Dr. C. C. Rounds, that "The rural school problem we seem fated to have always with us, and throughout the country it remains essentially the same."

The principal results of this investigation are presented in table II and the following paragraphs.

Table II treats of the *Studies*, showing:

1. What studies were taught.
2. The number of schools in which each was taught.
3. The least time allowed for recitation in a given study in any school where taught.
4. The most time allowed.
5. The least time allowed.

The studies taught, and the relative number of schools in which they appear, correspond closely with the statistics in recent Reports of the State. This agreement is especially marked in the more common studies. From the fact that these returns were of a high character, we might expect, as we actually find, that they give undue importance to some of the

# TABLE II.

STUDIES IN TWENTY-TWO UNGRADED SCHOOLS IN MAINE.

| STUDIES. | No. of Schools in which taught. | Time recitations in each study. | | | Least. | Greatest. | Average. |
|---|---|---|---|---|---|---|---|
| | | Least. | Greatest. | Average. | | | |
| Reading | 22 | 25% | 46½% | 32½% | | | |
| Spelling | 22 | 1⅓ | 10⅓ | 5½ | | | |
| Grammar | 20 | 5½ | 11 | 8 | 39% | 59% | 47% |
| Language | 8 | | | | | | |
| Writing | 10 | 2⅔ | 5½ | 3⅓ | | | |
| Arithmetic | 22 | 14 | 23⅔ | 18.5 | | | |
| Algebra | 8 | 3⅓ | 8⅓ | 4.5 | 14% | 27⅔% | 20¼ |
| Geometry | 1 | | | | | | |
| Book-keeping | 1 | | | | | | |
| Geography | 22 | 8⅓ | 20 | 12¼ | | | |
| U. S. History | 15 | 5½ | 8⅓ | 5⅔ | | | |
| Physiology | 11 | 1 | 9⅔ | 4¼ | | | |
| Drawing | 3 | 1 | 6⅔ | 3⅓ | | | |
| Singing | 1 | | | 2⅓ | | | |
| Gymnastics | 1 | (During recess period.) | | | | | |
| Physics | 3 | 2⅔ | 8⅓ | 5½ | | | |
| General History | 1 | | | 5½ | | | |
| Natural History | 1 | | | 4 | | | |
| Morning Exercises | 22 | 1½ | 4 | 2⅔ | | | |
| Recesses | 22 | 4 | 8⅓ | 8 | | | |

secondary studies. Yet even here there is but a slight difference between the relative proportions and the statistics in the last State Report, which states that in nearly a fourth of the schools of the State are found studies which are not required by law.[1] Supt. Stetson, in speaking of his investigations among the rural schools, also says:

"These visits revealed some startling facts. In only two per cent. of the schools is instruction given in book-keeping; in four per cent. civics are studied; in about an equal per cent. instruction in music and drawing is given; in thirty-two per cent. map-drawing is used, and in less than five per cent. an intelligent attempt is made to have children learn something about plants, minerals, and animals."[2]

However, there is a disagreement with the conditions implied in the following paragraph from this Report:

"It is very gratifying to be able to state that the work in oral and written spelling and penmanship was fairly creditable, when the ages and training of the pupils are taken into consideration. The statement contradicts the accepted theories concerning these two studies."[3]

[1] Maine School Report, 1895, p. 8.
[2] *Ibid*, p. 43.
[3] *Ibid*, p. 41.

This contradicts not only the experience of many teachers who have had to do with the product of these schools, and the conditions found in Connecticut, but the evidence from these schools is that in many instances such gratifying results must be due to chance acquisition of the art, as in less than half of the programmes was any mention whatever of any exercise in penmanship.

That so many secondary studies, though their number in proportion to the number of schools is decreasing, are still found in the ungraded schools, is an encouraging fact; for many young people discover a new interest in school life when they can take up a new study, and consequently they remain in school longer. Often it is the only way in which they can obtain even the elements of any of the natural sciences; as it is impossible for many—perhaps the majority—of the school children in the smaller towns to secure the advantages of a high school. Though some may urge that one of the purposes of "nature study" is to give the general elements of certain sciences, yet for the older pupils this is inferior to a specific subject in two respects at least: 1. General work does not appeal to the older pupils with equal force. 2. The mastery, by a country school boy, of some elementary book in physics, geology, astronomy, or physical geography, has before now brought out more thought and proved a more valuable mental discipline than any other study which he had taken up, and sometimes even such a study has been an inspiration toward a wider education.

The injustice of the neglect of the younger pupils under the present system, is seen from a study of The Way in which the Pupil Spends the Time in an Ungraded School.

| In Recitation. | Youngest Pupil. | Oldest Pupil. |
|---|---|---|
| Least time, | 8⅓ % | 20½ % |
| Most time, | 23 % | 50 % |
| Average time, | 15 % | 35 % |
| Without guidance from the teacher. | | |
| Least time, | 76⅔ % | 50 % |
| Most time, | 91⅔ % | 79⅔ % |
| Average time, | 85 % | 64⅓ % |

The fact that the pupils pass from 50% to 90% of their time without guidance from the teacher ought to suggest something as to the methods to be used in the ungraded schools. This estimate includes all the time except that during which the child is reciting. Often the younger children have longer recesses, and are dismissed before the session is through. In many schools busy work is supplied; though often meager and

of very slight value when the greatest advantage to the child is the consideration. After making liberal allowance for the longer recesses and earlier dismissals of the younger pupils, it is still found that all pupils are at their desks from three to three and one-half hours per day ; and that, where the younger pupils do not have these extra privileges, they are often there for four and one-half hours.

*Method in the Country Schools.* The great difference between the conditions which modify the actual work of the class room in the ungraded rural school and in the graded city school has not received sufficient consideration. In nearly all of the State courses, the work for the rural school is outlined as if it were to be done with all the time and with the *same methods* which are possible in the well-equipped and better organized city schools. Indeed, here is the exact statement of the position which many take upon this question. Attention is called to the clause placed in italics. "The schools are ungraded if the different grades are organized into one school in which pupils are taught in various classes according to their attainments in the different subjects of study. From this we may infer that each of the two kinds of schools must have an organization of it own. While *the same method of teaching should be practiced in the ungraded as in the graded schools*, the arrangement of their course of studies must differ in some particulars, to meet the wants of the different classes."[1] The report then goes on to discuss the "Organization of Ungraded Schools," calling attention to some of the difficulties, and especially suggesting devices for lessening the number of classes.

No matter how skillfully or how far classification may be carried, the country pupil will be obliged to work by himself from 60% to 80% of his time. This is a low estimate. If a thorough study of this particular phase of the rural school problem could be made, the results might be startling. Our information upon this point has been from the official daily programme used in the schools of Kentucky, from daily programmes suggested in various State courses, and from such returns as have been received in response to a request for typical daily programmes of schools actually in session. In all, over a dozen States are thus represented.

With two exceptions, in one case where there were six [2] and in one where there were four,[3] each programme allowed for five classes, or divisions, among the pupils of a school. The number of recitations varied from 21 to 28.

---

[1] Massachusetts Board of Education, '93 and '94, p. 308.
[2] Ky.
[3] N. Y.

The least time (exclusive of general exercises, as writing and observation lessons) given by the teacher to the most advanced class represented in any of these programmes, is 21%; the most time 38%.

The greatest amount given to the beginning class is 19⅓%, the least time 9%. The average time for the beginners 11.3%; for the highest class 28¼%. Here we have the youngest pupils, who should receive more guidance than their elders, practically left to themselves for 90% of their time; while the older pupils work alone more than two-thirds of the time, and even in the most favored instance do not have 40% devoted to recitation.

It does not seem possible to remedy this condition without a change in the method of teaching, which shall be radically different from those followed in most of our city grades. This change should be an increased emphasis of the individual method, as opposed to the present tendency to concentrate and grade. There is the possibility of an advantageous introduction of more written work, conducted somewhat according to the laboratory method. Written language work would then become the center of much of the school work, or at least would occupy much more of the pupil's time, both at his seat and in recitation, than at present. At present the amount of time devoted to formal recitations in the common branches of the "mother tongue," viz., reading, spelling, writing, and language, is enough to give good results; yet "English" is commonly the weak point in the education of the country child.

The programmes last mentioned showed an average of 48% of the entire session devoted to these subjects, more time than is given to all other subjects combined. Of this 48%, over three-fifths, or 29%, is taken by the reading classes, which, as often conducted, waste the time of both pupil and teacher. In the case of the twenty Maine schools, never less than ¼ of the entire school day, often nearly ½, on an average ⅓ was devoted to the recitations of the reading classes.

The courses of study and the programmes might be so arranged that the pupil's *work at the desk*, not the recitation, might receive the stress. It is necessary that the younger pupils should receive more attention, if they are to have an earlier start, which will enable them to obtain the most possible out of their *limited* school life. It is necessary that the older pupils receive more guidance in the formation of habits of study, if they are to continue their education, through reading, after the *early* severing of their connection with the school.

## IV. City Courses of Study.

The data for the study of the city courses was not as complete as that for the State courses. In the great majority of instances no answers were received to our questionnaire when first out, and often no answer to a personal letter. And the answers received were not always helpful on the main points. At last, however, over one hundred answers, and about eighty courses of study were obtained. These represent most of the larger cities from all parts of the country; though relatively fewer from the South and West than from the extreme East. Although these returns cannot be made the basis of a statistical study of the courses in the United States, they are certainly typical and full of suggestions.

*General Description.* In the courses themselves there is looseness in the use of common terms and a general indefiniteness which makes it difficult to compare them. Thus we find at best that the terms, Grammar and Primary mean only the extreme ends of the elementary course; in Maine the Grammar Grades, in one city, mean the last three years, in another the last six; in the rest of New England and the North Atlantic States the primary schools generally include the first three years of school life. In Wilmington, Del., the primary school refers to the first three years, and the Grammar to the last five; just across Chesapeake Bay, in Baltimore, the reverse is found; the first five years constitute the primary grades, the last three the grammar. The returns from the Southern States show as great indefiniteness. Throughout the West there appears to be a commendable tendency to either do away with these terms altogether, and simply to speak of the grades I–VIII, or when the distinction is made, for the most part, to call the first four the Primary and the last four the Grammar.

As might be expected there is found a great individual difference in the work laid down in the various courses under such common heads as geography, history and language; while in certain other subjects the confusion exists, not alone in the work, but also in the names which appear in the course of study; thus, the terms "nature study," "elementary science," "science," "observation lessons," and "general lessons," are extremely elastic and interchangeable.

For the most part the city courses of study are shorter than those published by the States, although there are some exceptions; thus the course of study for Cleveland, Ohio, is 50% longer than any of the State courses.

It may also be asserted that there is more mechanical imitation in the city courses. This is especially apparent among those from the same State or section. An explanation for this

may perhaps be found in the conditions under which the different courses are made. We have seen that the State course has often had its origin in some movement by the State educational association, and it thus became the work not of a single person, nor of those who have been influenced by the conditions and methods prevailing in one city. In this way have been produced courses which, in definiteness of aim and originality of treatment at least, are superior to the average of the city courses although there are a few among the latter which show the result of more thought, time and care.

In by far the greater number of instances, the city course is drawn up by the superintendent alone. In the Eastern States especially, the returns often read, "by the Supt. and principals," or "Supt. and teachers." In a few instances the course is the joint work of the "Superintendent and Board of Education," and occasionally of the Board or committee on course of study. Considering the origin, one cannot be surprised to find that the city courses are not on the whole so well rounded as the State courses; that very often they will show one or two subjects very carefully worked out, while other subjects will be but slightly touched upon, or show at once that the outline is made by a person who is by no means a specialist in that line. This is especially true of the smaller, and of the less progressive larger cities. As a result the course often appears lopsided, and this is what might be expected at the present time when so many subjects of uncertain education value demand attention. It is not to be wondered at that so many courses appear to have been blindly copied from neighboring ones; or that in the attempt to hide the pattern the modicum of virility, which the original may have possessed, should be lost.

Among the courses received, only one, that from Battle Creek, Mich., followed closely the programme suggested by the Committee of Fifteen, though a number bore traces of its beneficial influence, and in some instances the statement was made that there was an attempt to follow its guidance. In a few instances, however, the form, rather than the spirit, seemed to be imitated; thus the subjects recommended would be introduced, and perhaps the allotment of time to some extent followed, while the outline of the work showed no adequate conception of the pedagogical principles of the Report. Several superintendents consider the words of these "leading educators" as infallible as those of the sacred canon, and rejoice that the last revelations concerning a course of study have been received. They accept the suggestions in the deepest faith, thus the preface to one course has this reference to the course laid down by the Committee of Fifteen: "This course emanating from the fountain head, places supervisors at ease, and teachers at rest."

*The Studies.* All the studies found in the State course appear in the city course, although the regularity of their appearance varies somewhat, and other subjects are also included. The nucleus is somewhat changed; civil government receives less attention, while drawing, the other study which was found pushing itself into the charmed circle, is here fully recognized. Indeed it appears to occupy about five per cent. of the pupil's time during his entire elementary school life; considerably more time than is devoted to history and but little less than to geography.

Physical exercises of some character are a part of nearly all the courses; and Nature Study is recognized as having a place, though for the most part an indefinite one. Elementary algebra and geometry during the last year or so of the course are much more frequent, while book-keeping, except along the Atlantic Coast, seems to receive less attention. Work in the sciences is occasionally outlined as in the State courses. The following studies, not met with at all in the State courses, are found in one or more instances: "Bible Questions," German, French, Latin, and manual training, including also "sewing," "cookery" and "housework."

Several of the subjects regularly found in these courses require special consideration. If we are to take in good faith the suggestion recently (1896) made at the conference of the North Central Colleges and Secondary Schools at Chicago, "to prolong history downward into the elementary schools," there is ample opportunity to begin; for in the larger number of the courses examined the work in history was not begun until the last, or next to last year. In the remaining cities it is outlined to cover the last half, and the entire course in about an equal number of instances. One city having a population of 30,000 has but 1½ year's work in history, and that consists of reading Eggleston U. S. History as a part of the supplementary reading. There are other cities which do little more. On the whole the amount of time given to history is slightly in excess of 3%, very seldom indeed over five, and often unsystematic to the extreme. Not only is it meager in amount, but also rather provincial in spirit. Rarely is there any evidence of an attempt to teach the history of any country besides our own, despite the astounding ignorance of the modern history of Europe, which is repeatedly displayed by press and pulpit. Chicago, and Brookline, Mass., are among the few cities which provide for some study of English history below the high school. General history is scarcely considered. The following, from the Jersey City course of study, is close to the maximum:

"In all grades some of the matter selected for supplementary reading should have reference to notable persons and great

events in history. The study of United States history should lead the pupil to the reading and study of brief histories of other important countries. By the time the pupil leaves the grammar department he should have some knowledge of general history, and should possess a desire to continue his historical reading."[1]

Hardly any one would question the justice of this demand, or, after investigation, fail to note the way in which it is ignored. Perhaps this suggestion from the Jersey City course is as good a means as can be employed; still it would be inadequate unless there is a more definite selection of the supplementary reading than often found. The way in which books for supplementary reading are indiscriminately piled up in some of the courses cannot well be other than preventative of the formation of orderly and systematic habits of reading, even if other worse results do not follow.

On page 144 of the Report of the Committee of Ten we find this danger signal: "Nature Study will not succeed unless it is co-ordinated with other studies. It should not be pushed into the course as an extra, but should be made the basis of much of the other work of the school. Experience has shown that when it is used as a basis for the early training in language and drawing, an interest in these studies is easily secured and sustained."

Notwithstanding this warning Nature Study, as laid down in the courses, much too often appears to be "an extra pushed into the course." This is more apparent in the returns from the East and South, while in the West this suggestion of the committee is more frequently heeded. In fact, in the East there seems to be more emphasis on the individuality of studies, and less correlation through the use of nature study and literature. A few typical answers from the two sections of the country will illustrate this statement.

"I do not know that our courses of study have any distinctive traits, unless it be that sewing, cooking, and wood-working are included under the head of manual training; possibly the schools of Boston provide for these forms of manual training more extensively than is usual in the schools of the country."—*Boston.*

"I should say that the distinctive traits of our course will be found in the stress we place upon the study of the English language and literature, not only in the primary and grammar schools, but especially in the High School course."—*Albany, N. Y.*

"The effort in the construction of the course and in its execution, has been and is to give due consideration to the entire being of the child, and to insure its uniform and natural development. Along mental lines we first endeavor to teach the child to think; and second, to suitably express those thoughts. The course of study is so arranged

[1] Jersey City Manual, p. 56.

as to fulfill this idea. Thought or content subjects are placed in the lead, followed immediately by formal and expression subjects. The entire course recognizes a suitable equilibrium between these."—*Winona, Minn.*

"Language (Reading, Literature, History) is made the main line because of its wide scope of training, *especially its ethical value.* Next is placed the sciences, and these are closely correlated with the first line. Lastly is mathematics, so placed because they are the narrowest in their educational influence. Drawing is taught as a means of expression throughout."—*Nebraska City.*

Other illustration of this difference will be found later in this paper.

*Typical Courses.* It has been very difficult to find in the courses material which can be put into concise form and adequately represent them. The best means offered is in the weekly time tables, found in a minority of the returns. Several of these, which are fairly typical, are here presented in somewhat modified form, aud will repay the careful study of any one looking for a concise and graphic view of the elementary school work. Among the points especially set forth in these tables may be noted: 1. Different methods of gradation. 2. The variations in the length of the course and of the school day. 3. The number of studies. 4. The variation in the studies. 5. Their sequence. 6. Correlation. 7. The approximate time devoted to each study.

We are fully aware that this last is but an approximation to the true amount of time devoted to the several studies; that the quality of the work may vary even more than the quantity; and for this reason, that the method employed is open to objections, especially, if one attempt to base on the results a comparison of the absolute time in different sections of the country. However, for a comparison of the relative amount of time given to a particular study during the elementary course, it is not without value; and if one allows for the variations in the length of the year, and of the school day, the comparison can be made even more exact.

The course of study for Worcester, Mass., which was drawn up in 1893 by a committee of grammar school principals, is in many respects typical of the nine grade school common throughout New England. It is especially typical in the studies, their sequence, and their time limits. Under the present superintendent it is being gradually changed—the tendency being as follows: less time is devoted to numbers in the three lowest grades; geography and history appear earlier in the course, and are related more closely to the language work; the ninth grade has been enriched by the introduction of such studies as English history and algebra.

## TABLE III.

WORCESTER, MASS. TIME SCHEDULE (WEEKLY), 1893.

| GRADES. | I. | II. | III. | IV. | V. | VI. | VII. | VIII. | IX. | Hours. | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Language | 12 | 11 | 11 | 9 | 9 | 8½ | 8½ | 7½ | 7 | 83½ | 36% |
| Arithmetic | 4 | 5 | 5 | 4½ | 4½ | 4½ | 4½ | 4½ | 4½ | 41 | 17 |
| Geography | ..... | ..... | ..... | 3½ | 3½ | 3 | 3 | 3 | 2 | 18 | 8 |
| History | ..... | ..... | ..... | ½ | ½ | 1½ | 1½ | 2 | 4 | 10 | 4+ |
| Nature Study | 3 | 3 | 3 | ..... | ..... | ..... | ..... | ..... | ..... | 9 | 4+ |
| Elements of Science, | ..... | ..... | ..... | 1½ | 1½ | 1½ | 1½ | 2 | 1½ | 9½ | 4– |
| Drawing | 1½ | 1½ | 1½ | 1½ | 1½ | 1½ | 1½ | 1½ | 1½ | 13½ | 6– |
| Music | 1½ | 1½ | 1½ | 1½ | 1½ | 1½ | 1½ | 1½ | 1½ | 13½ | 6– |
| Physical Exercises | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 4– |
| Recesses | 2⅔ | 2⅔ | 2⅔ | 2⅔ | 2⅔ | 2⅔ | 2⅔ | 2⅔ | 2⅔ | 24 | 10– |
| Opening Exercises | ⅓ | ⅓ | ⅓ | ⅓ | ⅓ | ⅓ | ⅓ | ⅓ | ⅓ | 3 | 1– |
| Total hours | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 234 | 100% |

School year, 40 weeks.

Although the nine year course is the one most common in all the North Atlantic States, there are many variations. Thus in Maine are also found courses of eight, ten and even eleven grades; in some of the most progressive cities of Massachusetts there are only seven or eight grades. In the Southern States the elementary course is commonly of only six or seven grades, but is followed by a high school course of three or four years, which contains more of the so-called elementary studies than do the high school courses from other parts of the country. Throughout the rest of the country the eight grade system is almost universal.

In this connection it will be well to take note of some facts which appear in the returns from over one hundred cities, which include the majority of the more populous ones. The variation in the length of the school year in these cities, comparing the returns from different sections of the country with each other, is not nearly as great as when the general statistics, which include the smaller places and rural communities in the same sections, are compared. Thus in Maine, New Hampshire, and Vermont, where the cities making returns were relatively small, the length of the school year averages about 36 weeks. In Massachusetts and Rhode Island the cities were much larger and the length of the school year was returned as 40 weeks.

The highest average of all, 40 plus, was in New York and New Jersey, and the average of the population in the cities was also *much* larger. From Pennsylvania, where returns reported an average of 40 weeks, there is a gradual decline to about 36 weeks in the Southern cities. In the North Central

# TABLE IV.

CHICAGO. COURSE OF STUDY ADOPTED JUNE, 1894.

| GRADES. | I. | II. | III. | IV. | V. | VI. | VII. | VIII. | Totals. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Reading | 675 | 600 | 500 | 250 | 250 | ..... | ..... | ..... | 2,275 | 19% | |
| *English | 150 | 115 | 100 | 65 | 65 | 145 | 175 | 175 | 990 | 8.2 | |
| Dictation Exercises | ..... | 50 | 50 | 60 | 60 | 60 | 60 | 60 | 400 | 3.3 | |
| Grammar | ..... | ..... | ..... | ..... | ..... | 120 | 160 | 160 | 440 | 3.7 | |
| Writing | 75 | 75 | 100 | 100 | 60 | 60 | 60 | 60 | 590 | 5. | 39.2% |
| †German | ..... | ..... | ..... | ..... | (300) | (300) | (300) | (300) | (1,200) | | |
| Mathematics | 225 | 225 | 300 | 300 | 300 | 300 | 300 | 300 | 2,250 | 18.8 | |
| Geography | ..... | ..... | ..... | 200 | 250 | 300 | ..... | ..... | 750 | 6.2 | |
| *History | ..... | ..... | ..... | 60 | 60 | 60 | 200 | 200 | 580 | 4.8 | |
| Singing | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 600 | 5. | |
| Drawing | ..... | 60 | 70 | 90 | 90 | 90 | 90 | 90 | 585 | 4.8 | |
| ‡Nature Study | 100 | 100 | 190 | 100 | 90 | 90 | 90 | 90 | 760 | 6.3 | |
| Physical Culture | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 400 | 3.3 | |
| Manual Training | ..... | ..... | ..... | ..... | ..... | ..... | 90 | 90 | 180 | 1.5 | |
| Opening Exercises | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 200 | 1.7 | |
| Recesses | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 1,000 | 8.3 | |
| Total minutes | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 120,000 | 100% | |

School year, 40 weeks.

* The 4th, 5th and 6th grade History is obtained through supplementary reading books, and has intimate relation with the work in English.

† The two-class arrangement in the Grammar Grade rooms and the presence of a special teacher permits the same time to be given to German as to Mathematics, the recitations alternating.

‡ The Nature Study includes Physiology in 6th, 7th and 8th grades.

# TABLE V.

MILWAUKEE, WIS. WEEKLY TIME TABLE, 1895.

| GRADES. | I. | II. | III. | IV. | V. | VI. | VII. | VIII. | Min. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Reading | 400 | 350 | 250 | 250 | 250 | 200 | 200 | 200 | 2,100 | 14½% | |
| Spelling | 150 | 100 | 100 | 100 | 100 | 75 | 75 | 75 | 775 | 5⅓ | |
| Writing | 75 | 75 | 125 | 125 | 125 | 60 | 60 | ..... | 645 | 4½ | |
| Language | ..... | 200 | 180 | 180 | 180 | 180 | 180 | 180 | 1,280 | 9 | —33⅓% |
| German | 175 | 175 | 200 | 200 | 200 | 200 | 200 | 200 | 1,375 | 9½ | |
| Arithmetic | 200 | 250 | 200 | 200 | 200 | 200 | 200 | 200 | 1,580 | 11 | |
| Book-keeping | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 200 | 200 | 1½ | |
| Geography | ..... | ..... | 120 | 120 | 120 | 120 | ..... | ..... | 480 | 3⅓ | |
| History, or | ..... | ..... | ..... | ..... | ..... | 160 | 160 | ..... | 214 | 1½ | |
| Physiology | ..... | ..... | ..... | ..... | ..... | 160 | 160 | ..... | 106 | ⅔ | |
| Constitutions, or | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 180 | 60 | ⅓ | |
| Science Lessons | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 180 | 120 | 1 | |
| Nature Study | 100 | 100 | 60 | 60 | 60 | 40 | 40 | ..... | 460 | 3⅓ | |
| Drawing | 75 | 75 | 60 | 90 | 90 | 90 | 90 | 90 | 660 | 4½ | |
| Singing | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 600 | 4 | |
| Calisthenics | 75 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 775 | 5⅓ | |
| Reading to Class | 75 | 50 | 80 | ..... | ..... | ..... | ..... | ..... | 205 | 1½ | |
| Study | 100 | 100 | 100 | 150 | 150 | 150 | 270 | 150 | 870 | 6 | |
| Recesses | 200 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 1,250 | 8⅔ | |
| Opening Exercises | 100 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 100 | ⅔ | |
| Total min. per week, | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 14,400 | | |

School year, 40 weeks.

## TABLE VI.

NEBRASKA CITY, NEB. WEEKLY TIME TABLE. (COURSE OF STUDY, 1895.)

| GRADES. | I. | II. | III. | IV. | V. | VI. | VII. | VIII. | Total. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Reading | 450 | 450 | 375 | 375 | 250 | 250 | 200 | 150 | 2,500 | 23% | |
| Language | | | | | | | | | | | |
| Composition | | | | | | | | | | | |
| Plant Study | 130 | 130 | 130 | 130 | 250 | 250 | | | 1,020 | 9.8 | 47.9% |
| Animal Study | | | | | | | | | | | |
| History | | | | | | | | | | | |
| Literature | | | | | | | | | | | |
| Grammar | | | | | | | 250 | 250 | 500 | 4.6 | |
| Spelling | | | 75 | 75 | 100 | 100 | 100 | 100 | 550 | 5. | |
| Writing | 100 | 100 | 100 | 100 | 60 | 60 | 40 | 40 | 600 | 5.5 | |
| "Numbers" | 200 | 200 | 200 | 200 | 250 | 250 | 250 | 175 | 1,725 | | |
| Algebra | | | | | | | | 100 | 100 | 17.5+ | |
| Geometry | | | | | | | | 100 | 100 | | |
| Geography | | | | | 250 | 250 | 150 | | 650 | 6. | |
| History | | | | | | | 100 | 250 | 350 | 3.2 | |
| Physiology | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 200 | 1.8 | |
| Sciences | | | | | 40 | 40 | 60 | 60 | 200 | 1.8 | |
| Physical Culture | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 400 | 3.6 | |
| Drawing | 60 | 60 | 60 | 60 | 75 | 75 | 75 | | 465 | 4. | |
| Music | 60 | 60 | 60 | 60 | 75 | 75 | 75 | 75 | 540 | 5. | |
| Opening Exercises | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 200 | 1.8 | |
| Recesses | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 800 | 7.5 | |
| Total min. per week, | 1200 | 1200 | 1200 | 1200 | 1550 | 1550 | 1500 | 1500 | 10,900 | 100% | |

School year, 36 weeks.

States an increasing proportion of smaller places reporting bring the average down to a little less than 40 weeks. As we cross the Mississippi the average drops again to about 38 weeks, to rise to 40 on the Pacific slope. Thus, it may be, that the length of the school year is a general function of the size of the cities and the density of population, rather than a characteristic of any special section of the country. The two cities reporting the greatest number of weeks are Louisville, Ky., 43, and Brooklyn, N. Y., 42 weeks.

*Extent Followed.* In our returns there was not much to indicate to what extent the city courses are followed, though it seems probable that in most cases the course was intended to serve as a very general outline of the work. There are a few instances in which the course seems to have been felt as an annoyance by the teacher. Thus it is reported to be "a favorite complaint with teachers that the course of study is so heavy that the work cannot be done properly in the time allotted."

In giving the reasons for making a revision of the course one Report states that "the work in all studies has been outlined more definitely. Because the work was not stated with more

precision, some teachers did too little, while others did too much, and yet all may have adhered to the course. It is probable that this will always be the case, no matter how the course may be stated."

The teachers of one city are told that the course of study is the same as law for them, and they are warned to break it at their own risk.

The following "general directions" are given for the carrying out of one of our best courses:

"1. The course of study that follows is adopted for use in the various grades of the public schools. Departure from this course, either in subject matter or time limits, is not to be taken without consultation with the superintendent.

"2. It is the duty of the principal to ascertain frequently, by personal inquiry and inspection, whether each teacher is complying with the specific requirements of the course."

*Promotions.* Closely related to the preceding topic is the question of promotion. About one-fifth of the cities heard from reported no promotion except at the end of a grade. These cities are more numerous in the East than in the South or West. Of the remaining four-fifths a large proportion make individual promotion but rarely. A few quotations from the answers received to the question, "Is there promotion at any time except at the close of a grade?" may serve to give a clearer conception of the present status of this troublesome problem.

"We promote only at the close of a grade. Twice a year—February and June 1."—*Richmond, Va.*

"Promotions are made annually in June, upon the recommendation of the teacher, approved by the principal. Pupils, not recommended, may be examined at the request of parents. At any time, though, pupils considered qualified may be promoted."—*Baltimore.*

"We seldom promote, except at the close of year."—*Dayton, Ky.*

"No promotion, except in lower grades, and that is unusual."—*Washington Co., Md.*

"At end of each half year. Once in a while a pupil is sent forward."—*Passaic, N. J.*

"Except where individual interests seem to make it advisable for the best welfare of the pupil, promotions are made only at the close of a grade; that is, of the year's work. We have on an average, perhaps, ten or twelve such exceptional cases, each year. To allow for the different capacities of different children as regards rate of progress, we employ the 'Cambridge system,' and find it works well."—*Keene, N. H.*

"If a pupil shows himself able to do the work of a higher grade, he may be promoted at any time. The regular class promotions are at the close of a grade."—*Orange, N. J.*

"The pupil may be promoted any time he is qualified."—*Jersey City.*

"To a considerable extent there are promotions at times other than the close of a grade."—*Boston.*

"On judgment of principal and teacher, any pupil may be promoted, if *found* qualified, at *any* time; this is the elastic element in the gradation of the schools of Newark."—*Newark, N. J.*

"Promotions are made at any time during the year, when the principal is satisfied that the pupil deserves it."—*Louisville, Ky.*

"Promotions are made whenever there is a vacancy in a grade and a pupil from a grade below is desirous of filling it. This is always done by an examination."———

"Whenever a pupil is found to be able to do more work than his class, other conditions being favorable, he is promoted. Classes are promoted whenever they have satisfactorily finished grade work."—*Pueblo.*

"These special promotions are made at any time when it is found that a pupil can beneficially undertake the work of a higher class."—*Salt Lake City.*

"*Whenever* an individual can get more good from another class than from the one he is in, he is thus transferred. In our departmental schools *classes* often do three grades' work in two years."—*Utica, N. Y.*

"We are constantly making individual promotions."—*Albany, N. Y.*

"Promotions take place at any time during the year; regular movements of classes at the end of the year; special promotions at any time. We made seven hundred of the latter in a total enrollment of seven thousand last year. This has been the custom in Erie for years."—*Erie, Pa.*

*Making a Course of Study.* No attempt is made in this paper to offer a new course, but the returns to be presented will show how courses of study are made in this country, and a few points suggested by these returns will be given.

There seem to be three distinct kinds of courses as regards their purpose. One, which may be called the theoretical, is intended to illustrate and emphasize certain pedagogical truths, and thus serve as a guide in the adaptation of such broader principles as correlation and sequence to educational work. The best examples of such courses are those prepared by the Committees of Fifteen, and of Ten.

The second kind may be called the outline course; as it merely outlines the work which is to form the basis of the course of instruction. It may be simply a compilation of topics to be studied, or may, under the various sub-topics, carry out the work in detail; but no attempt is made to give direct information concerning principles or methods of teaching. The principles may be implied, but they are not pushed forward. The Connecticut course of study, which is merely a detailed outline of the work actually covered during one year by the model schools connected with one of her normal schools, is the best example from the State courses. The Indiana Manual is also fairly representative. This type is very common among the city courses, especially among those from smaller places, where there is less attempt to make the course elaborate, or scientific. The Chicago course is an excellent

illustration from a large city. Much more common than either of these is the course which both outlines the work and suggests methods of instruction. This class includes 75% of the courses received. Some of these keep distinct the outline and pedagogic instruction, and maintain a happy proportion between them; but in more cases the two aims are so confused that the average teacher must have great difficulty in determining what work is to be taken up even in her own grade; and is not likely to get that perspective of the work of the whole course which she should have, and which a good course ought to give at a glance; the arrangement of topics serves only to suggest points to be emphasized in the grade, without showing the proper relation to the rest of the course, and the suggestions are merely mechanical methods for the case in hand.

As already seen, the course is most frequently the work of the superintendent; very often he is assisted by his principals and teachers; and sometimes the course is constructed by a committee of the Board of Education. Of these methods the second is undoubtedly the best; as it is more likely to adapt the course to local conditions, and the participation of the teachers should serve as valuable educational work for them, and lead to a clearer conception on their part of the purpose of the course.

The next method to be preferred is the outlining of the course by the superintendent alone. However, though he is supposed to be an educational expert, there are special objections to the work being entirely in his hands. The greater likelihood of the course being one-sided has already been mentioned. There is also danger that he will make a course which he alone will understand. Certainly the beneficial results of the co-operation with his teachers will be lost. The worst results of all may be expected, when a school board attempts to formulate a course of study, since the average member cannot claim to be acquainted with the principles which should guide in its formations.

The length of the period during which a course is in process of construction is also an important consideration. Many report their courses as being "a growth;" some were originally drawn up five or ten years ago, and have been revised more or less since; others have remained almost as first made out. In a few places the course is revised at stated intervals, and in still other places is in a condition of constant change. A few excerpts from the returns will give a clearer picture of *how* and *when* the course is drawn up.

"Our course of study is drawn up annually by the superintendent."
—*Charleston, S. C.*

"By Committee of Board of Education annually in May."—*Atlanta, Ga.*

"By myself during the past two years."—*Nebraska City.*

"Our present course of study has been the growth mainly of the last five years. It has been drawn up largely by myself, assisted by our supervisors . . . . and in special departments, by the teachers of such departments."—*St. Paul.*

"The course of study, as presented to you, and the one upon which we are now working, was drawn up by myself during the past year. This was done after frequent consultations with my best teachers, and references to numerous other courses of study."—*Lansing, Mich.*

"Our course of study in its different parts below the High School, is drawn up by the superintendent; in the High School, by the faculty, under control of superintendent.—*Erie, Pa.*

"By the Superintendent of Schools, after considerable study and many comparisons, during the school year 1894–95. The course in vocal music, drawing, and penmanship were originally drawn by the supervisor of those branches and only revised by the Superintendent of Schools."———, *N. Y.*

"Our course is the outgrowth of suggestions by teachers, principals, and all connected with the instruction in the schools for many years." —*Pueblo.*

"Our course of study has been a growth and not a creation. The first courses were prepared by a committee of the Board of Education many years ago, and were based somewhat upon the opinions of superintendent and principals of the schools. Of late years, the make-up of the course of study has been almost entirely controlled by the Superintendent of Schools, although he has always made his recommendations after taking the advice of, and freely consulting with, the principals of the schools. The course of study has been amended and changed frequently, as we believe the courses of study are made to be changed and amended with perfect freedom."———, *N. Y.*

"By Superintendent of Schools in 1890. It has been modified many times since. We are aided in its construction by suggestions received from various sources."—*Salt Lake City.*

"By Superintendent of Schools, and Committee on Course of Instruction. It was drawn ten or more years ago; and changed in parts, since then, from time to time."—*Quincy, Ill.*

"The course of study was drawn up by the Board of Supervisors about seventeen years ago; it has been revised by that Board from time to time. The course of study when drawn up, and after each revision, has been submitted to the School Committee for adoption."—*Boston.*

"The printed course of study which I send you, was drawn up, in the first place, by my predecessor . . . . but has since been considerably modified, and arranged in its present form by myself, as a result of my own observations and experiences of the teachers as to its practical working in the schools."———, *N. H.*

"Our course of study was carefully revised during the school year of 1893 and 1894, under the direction of the superintendent, assisted by the principals and teachers of the schools. This work was done by means of committees and through several grade meetings and general sessions of the teachers."—*Winona, Minn.*

"It was drawn up originally by the committee on text-books and course of study, in conjunction with the superintendent. This was

done at the beginning of our school system in 1872, and has continued to the present, but has been modified upon recommendations made by the superintendent from year to year."—*Macon, Ga.*

"Primary course by present superintendent, two years ago. Grammar and high school courses antedate the memory of man."———, *Mass.*

"It is revised from month to month by the teachers and superintendent."—*Decatur, Illinois.*

"Santa Rosa has no course of study. Text books are used only in so far as the laws of the land in defiance of the laws of natural development, insist. Energy has been exerted to break up the artificial uniformity of rules on paper and the rigidity of the graded system. Necessary unity has been preserved by the intelligence of the teacher who takes her cue from the state of the development of her pupils, regulated by the broad limits of supervision. Rules, regulations and red tape have, indeed, their place in the government of a force of wage-earners, but no place in a corps of student teachers. . . . .

"For the purpose of a clearer presentation, it is necessary to explain the work as made up of separate and distinct studies. In practice, however, the teachers have done much to correlate studies."

Opening paragraph in Report on *Course of Study.*

Another question in the syllabus was: "If it (the course) has distinctive traits, will you state why stress was laid upon certain subjects and abated on others?" The manner in which this question was received, and the frankness of some of the answers, throw light on the way in which the course is viewed by different superintendents; the influence of locality appearing to a noticeable degree. Thus in the West this question met with a ready and full reply, as if the superintendents were accustomed, when preparing a course, to consider it as a whole and to ask why a given study should be taught at all; hence although the number of returns were less, the number of full answers to this particular question was greater, and the nature of the answers different from those received from New England and the North Atlantic States. The child is more often mentioned as the supreme consideration in the making of the course. In the East, however, the tendency to draw a line after this particular question and leave it without further answer was very noticeable; as was also the tendency to specify a particular study as receiving the "stress." The latter answer was prominent also in the returns from the Southern States. Some of the most typical answers to this question, grouped according to the section of the country from which they came, are here presented.

*New England and North Atlantic States.*

"I do not know that I can say that our course has distinctive traits; we are, however, devoting special attention just now, in all grades, to English composition, because I found on taking charge of the schools last year, that that subject had been sadly neglected; and at our teachers' meetings, we are now making a special study of geography, as we have recently adopted a new text-book in that subject."———, *N. H.*

"In answer to question 8 will say that there was no pedagogical principle involved in the course of study."—*Maine.*

"Stress on good every day English—because of real need. . . . Physical training to improve health, carriage and general *poise.*"———, *Mass.*

"We lay considerable stress upon manual training."—*Newport, R. I.*

"*Science* work emphasized "———, *Conn.*

"Respects correlation and treats it as a center. Co-ordinates history and literature."—*R. I.*

"Reading matter adapted to other studies; algebra and inventional geometry introduced in last two years."—*Brooklyn, N. Y.*

"Reading for literary value."—*Auburn, N. Y.*

"Course in civil government. Arranged to facilitate the promotion of individual pupils."—*Buffalo.*

"The objective features of instruction, together with the relation of the various subjects to each other are special traits emphasized."—*Newark, N. J.*

"Perhaps the most distinctive trait is the attention paid to manual training. This was introduced in our schools in 1888. There are special teachers in that department, two of whom act as supervisors, beside giving instruction."—*Orange, N. J.*

"No special features."—*Allegheny.*

### *Southern States.*

"Stress is *laid* upon reading, writing and arithmetic."———, *Md.*

"No specially distinctive traits."—*Richmond, Va.*

"No special features."—*Columbia, S. C.*

"Especially do we pay attention to arithmetic, reading, spelling and penmanship. We grade on *Arithmetic.*"———, *S. C.*

"It has no traits such as the question would indicate. There is this peculiarity about it, that we do in seven years what the other city schools of our southern section take eight years to do."—*Macon, Ga.*

"'If it has distinctive traits, will you state why *stress* was laid upon certain subjects.' Language, 1st; Arithmetic, 2d; Geography, 3d; History, 4th; as per Report of Commissioner Fifteen."—*Ala.*

"Elementary science work has been emphasized more, history has been prescribed and mathematics condensed in order to include the elements of algebra. The reasons rest upon the judgment of the best educational authorities and the experience of the best educators."—*Ark.*

### *North Central and Western States.*

"Practical trait."—*Van Wert, Ohio.*

"I cannot say that our course has any distinctive traits, except that we aimed to prepare a course that would give to the child the best possible preparation—one that would not do him injury, either physical or mental."—*Lansing, Mich.*

"We are now paying special attention to mental arithmetic and elementary sciences—the former for the purpose of developing the reasoning faculties, the latter to train in observation."———, *Mich.*

"Many years ago we fell into the plan of seven grades below the high school. We cut out a large part of the higher arithmetic, technical grammar, etc., in the (ward) schools."—*Decatur, Ill.*

"I do not know that 'stress was laid upon certain studies and abated on others;' except that stress is laid on reading and writing in the earlier years."———, *Ill.*

"We have endeavored to base our course of study upon a rational correlation of topics and to avoid laying unusual stress upon any one subject. The studies of Nature, Literature, and History have been greatly increased over the old course as studies, and formal grammar diminished; geography increased and extended throughout the course." —*St. Paul.*

"Our course has no peculiarities, unless it be that it is somewhat flexible, allowing pupils who are weak in certain lines of work to pass grade sometimes, although they may not have done as much work in these lines as the class has done. In other words we try to fit the course to the child, not the child to the course of study."—*Pueblo Colo.*

"(a) Manual training in some form in every grade from the first primary through the high school—required in the grades—optional in the high school—not a course by itself, but a part of every course if the pupil desires it—even the classical.

"(b) Systematic gymnastic training in every grade—well equipped gymnasium in the high school, in which the boys and girls practice separately under skillful direction and in hygienic dress.

"(c) Music and drawing systematically taught in every grade.

"(d) Phonetic drill in connection with reading.

"(e) Course in history, beginning in the primary grades.

"(f) Nature study.

"(g) Each school room has its own collection of books—for library —properly graded.

"These things are emphasized because the time honored branches of the curriculum have, till recently, occupied most of the time; the latter, therefore, need no emphasis."—*Denver, No. Side.*

"Effort is made to keep in line with the general progress of the best schools."—*Austin, Nev.*

"Give all around development."—*Santa Barbara.*

From these returns the inference seems justifiable that, as a rule, the course of study is too much the product of one man, and that a rare opportunity to interest the teaching corps in professional work during its construction and reconstruction is thrown away. In the construction of the best course for any given community, it would also seem: 1. That the superintendent should have the guiding hand, laying down the broader principles, preparing to a large extent the material to go into it, and having the final decision upon all doubtful points; 2. That the assistance of the principals and teachers must be of the greatest value in adapting it to local conditions; 3. That suggestions from all other sources should be welcomed; 4. That anything savoring of imitation, not based upon a clear pedagogical principle, should be avoided as a germ of dry rot in the school system.

The true basis for a course of study would then be the necessary means for the highest development of the child, modified, as they must necessarily be, by local conditions. Prominent

among these are the recognized branches of the school curricula, and the ability and preparation of the teachers. A criterion of an individual element of a course is that it shall be something helpful to the child, and not too far beyond the ability of the local teacher to understand and to present intelligently to her pupils.

*General Summary.* 1. The present curriculum is a growth from few to many branches of instruction, accompanied by a change of emphasis due largely to social demands, which have been crystallized and enforced by legal enactments and courses of study. 2. The uniform State course of study is a phenomenon recent but widely extended on our educational horizon. It may be of great good as a unifying element, but is likely to prove a dangerously conservative one. Thus far it has followed too closely the city courses to be of the greatest service to the rural schools. 3. And as shown by section III, there is special need of emphasizing and extending the individual method of instruction in the ungraded schools. 4. The city courses, although of recent origin, have been a recognized part of the school system much longer, are on the whole more the work of one man, and hence more imitative than the State courses. They lay more stress on such studies as drawing, nature study, manual training and physical culture, the aim of which is more strictly development and less stress on the more utilitarian studies, book-keeping and civil government.

There is an almost universal belief that a course of study is a necessity in a well organized school system, as it gives a more definite aim to the school work; avoids needless repetition and waste of time; tends to more definite relations between the different branches; makes the work easier for the teacher, and more systematic for the pupil; and assists in classification and gradation. It may also serve to call the attention of the superintendent and teachers to some principles which form the basis of scientific education; and it seems probable that a good course may sometimes serve the young and inexperienced teacher as an inspiration toward higher educational ideals.

There are in these courses many defects and dangers, the majority of which may disappear as we come to know more of the principles upon which a course should be based; and those preparing the courses give to them more thought and care. Thus besides ignorance or disregard for the principles already known, there is clearly much indefiniteness as to the purpose of the course, and this indefiniteness in the mind of the maker becomes confusion in the presentation of the material which goes into the course; also, in many courses, there is undue emphasis on certain studies for other than pedagogical reasons.

Thus especially noticeable in the East is the emphasis upon individual studies, rather than upon the development of the child as the central idea of the course.

There is one marked danger which seems likely to increase rather than to diminish unless special care is taken, i. e., that the course shall become too rigid and difficult of change. This is especially menacing, because in the desire that the printed course shall not alone meet its requirements as a guide for the teacher in her school work, but also be able to withstand criticism, there is a tendency to make the course more and more an end in itself. It is elaborated and expanded until, as it were, nothing more can be done to perfect it, and then, with slight revision, it remains a cherished object for years, regardless of the advances which educational thought suggest.

The writer feels under great obligations to the many friends of education throughout the country who have so kindly co-operated in this study by answering the questionnaire and contributing material which has been consulted in preparing this paper; also to Dr. Hall for the valuable aid received in securing returns, and to Dr. Burnham for his many suggestions on the treatment of the material.

# TEASING AND BULLYING.

By FREDERIC L. BURK, Clark University.

The data for this study have been procured in answer to a questionnaire issued by President Hall, February, 1885, as follows:

1. *Teasing*. Give other terms, as hector, plague, bait, peck at, fret, worry. Describe in detail cases of children teasing others, from the slightest roguishness to the severest practical jokes; cases of infants parodying disobedience playfully to annoy parents; chronic habit and passion of fooling. Just what is done, how is joy by the tormentor and annoyance by the victim expressed, and what is the effect, if long continued, upon both. Is it ever done to test temper, or the cry-point, as if others were not known till they had been teased? Do defects of body or soul invite it? When do some children love to be plagued by others? Mischief generally. Causes and cures.

2. *Bullying. Synonyms.* Cases of tyranny among boys and girls from college hazing and school fagging down to the nursery. Cases where threats of exposure, injury, or imaginary dangers were the instruments of subjection and control. Is subjection ever voluntary and does bullying ever come to be enjoyed by or helpful to the victim? Effects on both. Causes and cures.

In all 156 persons responded to the questions upon teasing and 135 to those of bullying. With the exception of about twenty in each case, Miss Williams, of the New Jersey State Normal School at Trenton, furnished the data. The responses include about 1,120 instances of teasing and bullying, principally observational, partly reminiscent, and a few hearsay. The following are samples of one class:

1. I passed two boys about 9 and 7 years. The smaller was not molesting the larger in the least, yet the larger one was throwing stones at the little one while the child clung to a telegraph pole, where it had climbed to be out of reach of the blows which the larger had been giving him. The little fellow trembled as each stone came nearer and nearer. The other seemed to take a fiendish delight in what he was doing. Finally, he went down and began to pull the small boy's feet from under him, so the latter would fall on the sharp stones beneath. The little one now climbed down. Then the larger one seized the other's hat and threw it down the railroad track. He laughed when the little one timidly went for it.

2. Myrtle (3) pinched the baby in her mother's absence and made it cry. On her mother's return she denied that she had touched the baby.

3. Little girl (3) struck her younger sister and the latter fell down; the assailant laughed.

4. A little boy (10) was walking about the campus watching B (12).

B. ran at the boy, took hold of him and pulled at his necktie. When the boy whimpered and began to cry, B. jumped around him, clapping his hands and laughing. At last B. threw the boy down, pulled out the tie, and then ran off to play with another boy.

5. In the kindergarten, a little girl pulled the hair of a girl in front of her and would not desist when asked to do so. The tormentor and other pupils laughed.

6. Girl (18 months) pushed her brother over, and when he cried she looked on him with a "smiling, triumphant air."

7. Clifford (5) ties a string around his dog's neck and jerks it. When the dog whines he laughs.

8. When I (female) was 9 years old, and in a strange city, an unknown colored girl ran up and shook me. I was badly frightened and ran home.

9. Girl (7) often passed a house where five boys regularly threw stones at her.

10. I saw a boy (10) rush into a boy (7), push him along the pavement, throw him down and sit on his head. Every moment or so the larger would pinch the other's ear and demand, "Beg to get up?" Each time the victim would screw up his face in pain and shout, "NO." At last the tormentor grew tired, and with a parting kick left his victim to get up as best he could.

11. Fletcher would catch and throw down smaller boys who would not obey him, put his knee on them and hold them until they begged.

These cases represent a class of data left over as a residue after the great mass had been classified chiefly according to what seemed the motive in the mind of the tormentor. In these cases there seems to be no clear motive—at least none intelligible under the categories of our present system and customs of civilization. We determine, as a rule, the psychic states of another individual by the physical movements; if we use this criterion in the present cases we are apt to conclude that these children belong to that condition which Hobbes has called the natural state of man, "where every man is enemy to every man;" that they are inspired by an instinctive malevolence toward their kind, a predisposition to cruelty and a wanton disregard for the well-being of their fellows. That these actions, which seem so alien to the fundamental ideals of present society, are sporadic and exceptionally rare, is a view which the frank consciousness of all who have clear reminiscences, or who have made observations of childhood, will be tempted to deny.

What is the genesis of these alien traits, their significance, and their resultant effects upon adult activities? The theories which mankind has put forth to account for the origin of these alien traits may perhaps be grouped under two main conceptions:

(1) The conception of demonology in its various forms which has pictured a former perfect moral state, a Garden of Eden or a Golden Age, from which man, by demon suggestion or demon obsession, individual and hereditary, has fallen, and to which he ever attempts to rise again.

(2) The conception of evolutionary progression, and more especially that of recapitulation of the history of the race in the individual.

We will separate the two manifestations, physical movements, and motives and psychic emotions:

## I. Physical Movements.

In the examples given we have the following movements: Pursuing, throwing down, holding down, putting knee upon vanquished victim, pinching, pulling hair, pulling ears, striking, shaking, throwing missiles, dancing about conquered victim, laughing, clapping hands, holding down till victim begs mercy or admits conquest, "a smiling triumphant air," etc. Out of all the possible movements, why is it we find these special movements so common, indeed in male children almost universal? Why is it that these movements seem to come to them with the unerring exactness and physical grace that the duckling shows in his first swim? While it will take B. years perhaps to learn to dance the German to maternal satisfaction, yet he spontaneously knocks down a strange boy, mauls him, dances in his own way about the vanquished victim, laughing and clapping his hands, all with a spontaneous grace and nice perfection of detail.

These movements are those we are perhaps most familiar with in the acts of anger, vengeance, revenge, or in administering punishment. But in none of these cases is there evidence given of antecedent actions on the part of the victims, as causes for vengeance or anger. We have a piece of an anger or vengeance chain in a connected series of actions, broken off, as it were, and doing business on its own responsibility.

In another and later form the same movements are used by childhood as elements of their complex and invented games. Analysis of their most popular invented games, such as the various forms of tag, prisoner's base, blindman's buff, foot-ball and baseball, shows that these are complex compounds, the elements of which are just these movements cited—pursuing, capture, holding down, throwing missiles (as in the ball games), etc. The more malevolent and violent forms have been elided or modified, probably to a great extent by inhibition of adults.

But while these movements continue throughout childhood, they practically disappear with the advent of adult occupations in the social and industrial institutions of civilization. They do not so much die out as they are forced out by the fact that in the movements of life occupations they find no place. Whatever other differences there may be between work and play, there certainly is this difference—a difference in the kind of

movement. The movements of work are not made up of the movements of natural play, as the child selects them.

The symbolic philosopher with his conception of outer and inner correspondence, and the teleologist who seeks a purpose, find profitable food in many of the activities of childhood—doll playing and housekeeping in girls, constructiveness in boys, and curiosity in both. These are easily regarded in the light of functional activities in reputable relation, as preparatory exercises, to our social and industrial institutions of civilized life. We nourish and stimulate these activities consequently by all methods of home and school training; but the presence of these other movements, perhaps none the less common nor intense, which are born with childhood and die with childhood, seems to form a formidable exception to the symbolic and teleological principle. Not only do they seem to constitute an exception to the philosophy of the play movements of the man-child, but also to that of the young of those brutes which manifest a play impulse. In these movements of pursuit, capture, etc., the civilized man-child's plays are in striking exception to what has been put forward as a very general law.

The persistence of these movements, which seem to have no utilitarian purpose, is shown by the fact that adult men, even those engaged in manual occupations, delight at times to revert again to these original movements as these are involved in boxing, wrestling, fencing and various out-door games.

The superficial explanation offered for the impulse to engage in these games, either of childhood or those carried over into manhood, is that they constitute the play impulse, that they are an answer to the physical demand for exercise. But this gives no real explanation. It simply tells that there is a physical demand for exercise. This demand could be answered in an infinite number of ways, aside from those of striking, pursuing, etc. But why is it that play impulse being admitted, and the player having a free choice, that children and men select from the great number of muscular movements which are possible, just those of pursuit, throwing missiles, catching, striking, etc.?

To sum up, the vigorous appearance of these movements in a distinctive way with more or less violent and malevolent action in early childhood, later as elements of invented games, and then to die out with little or no connection to the occupations of life, constitutes a singular exception to the great mass of impulses—the impulses to which the attention of pedagogy has been centered, especially that of Froebel and Herbart.

## II. Motives and Emotions.

On the psychic side these movements suggest for some reason in our minds the presence of anger, vengeance or infliction of

punishment. But just as there is no evidence in the data given of antecedent actions on the part of the victim as parts of a general vengeance or anger chain, so we have no positive evidence of emotions of anger or of vengeance, although, for aught we of certainty know, they may exist in some degree. But upon face value it would seem that the emotions, if any really exist, as accompaniments of the movements, are rather of a character of pleasure of some antecedent hatred or desire for vengeance. Speaking in diagramatic terms again, the case seems like one in which a certain chain of emotions had been broken and we have left only a few of the last links—seemingly without causal relation.

In the children's invented games, such as tag, baseball, football, etc., where the movements, familiar to us in anger and vengeance occur, our reminiscence and observation probably assure us that under normal circumstances these emotions of malevolence or even of distinct pleasure in conquest, are at least not strongly present in consciousness. On the contrary it could be asserted that a distinctly friendly feeling exists between the game antagonists. These invented games have been sanctioned and moulded to a certain extent by elders who are with good cause continually on the alert to inhibit malevolent element. The appearance of malevolent motives or emotions as hatred, desire for punishment, pleasure in punishing, etc., are hunted down by parents and all those in authority over youth with that relentless persistence with which the seed of Adam and Eve ever grind the head of the serpent. Notwithstanding, these emotions and motives continually appear and reappear with a persistence that has lead to the conviction that the devil cannot be dead. In the games involving these asscciated movements there is a constant gravitation, with the force of a diverted river seeking its old channel, towards forms of actual malevolence. How shall we explain these alien, psychic states, which seem so naturally associated with these movements? Teleology and symbolism easily come in to explain such emotions as a girl's love of dolls, a boy's self-reliant courage at times, children's budding sense of religious awe or loyal emotions for the surroundings of home. These have a connected place in our civilization; but teleology is silent upon these alien emotions, and symbolism has painted for us a picture of a demon world in conflict with heaven's hosts, where man is the prize of contest. Rousseau said they were all the product of bad and artificial teaching, and Froebel agrees with him and hastily dismisses this unpleasant phase by calling those liars who assert original depravity.

As we take up these instances one by one we feel quite certain that the movements in some are accompanied by more or less

emotions of malevolent nature, while in others we find our minds doubtfully hesitating. The personal experience of parents and teachers who have attempted by general questioning to fathom the motive in similar cases is unsatisfactory, even though the child seems willing and to be doing his best to tell what is in his mind. Yet, as a rule, the child is unaccountably silent or vague in his explanations; he seems in fact to have actually very little to tell. Jesse Pomeroy was unable to give any better reason for cutting the throat of a little girl than that he wanted to see what she would do. A ten-year old pauper in an English workhouse,[1] after a trifling quarrel with his playmate Susan (aged five), pursued her into the barnyard, cut both wrists around the bone, set his foot on her stomach and cut her legs in the same manner, and then buried the body. In his examination he could give no intelligent reason for his actions beyond the fact that she was a very bad tempered child. A few weeks ago in Mississippi a nine year old colored girl, who had been left in charge of her sister's two children while the mother worked in the field, killed in a fiendish manner the elder of these children, Mary. The child, who was two years old, would not always mind, and sometimes Hattie, with considerable delight, would slap and pinch her until Mary would shriek with pain. On the day of the tragedy Mary bit Hattie's hand in self-defense. This threw Hattie into a frenzy. She snatched up a brick and struck Mary in the face, felling her to the ground. Mary screamed, and Hattie seized an axe and with one stroke crushed the child's head. She dragged the body out and threw it in the ditch. The child moved and groaned. "Ain't dead yet, is you?" cried Hattie, "I'll make you dead." She again took the axe and mashed the head to pulp. Hattie is said to be a particularly intelligent child. After her conviction, upon being asked why she had killed Mary, she said simply: "Because she bit me." This child's grandfather, brought from Guiana, was the terror of the negroes around on account of his savagery. He thirsted for raw meat, and it is said he would kill cats in order to suck their blood.

With these facts in mind the following quotation from "The Blot on the Brain," by Ireland (p. 84), contains a vein of pregnant suggestion for the problem in hand. "Insanity is generally described as an acquired quality or modification of man's character, something unnatural and pathological, whereas it may be easily viewed either as a condition natural to many men, or in others the gradual and inevitable growth of his character. Some children, if not all, are selfish, prone to passion, giving away to anger at the slightest opposition to their

[1] Newgate Calendar.

wishes, indifferent to the welfare of others and resenting deprivation and disappointment. . . . . At a later age they are apt to indulge in cruelty to animals, delight in delusions and false statements, and to gloat in pictures of wholesale cruelty and slaughter. *If a child were to grow up in such a state of mind, it would grow up insane.* The education to which children are ceaselessly subjected by their parents and teachers instill certain ideas and replace others, leads them to control their self-will. . . . . Hence it may be said that sanity is the result of education. . . . . In some cases a man comes into the world with tastes, impulses and sensibilities which no effort of education can subdue."

The view that these children are really incited by no very clear causes intelligible to adult minds seems in the realm of possibility, if not probability. In the light of a very recent doctrine of the causal order of physical movement and psychic emotion, associated with the names of Professor James and Dr. Lange, we are not called upon to assume the necessity for any distinct emotional motive prior to muscular activity.

But even with the acceptance of the alternative of a motivelessness in these actions, we are nevertheless called upon to explain why in the minds of observers the conviction of the existence in the child's mind of cruelty, hatred and kind-hating antipathy rises so forcibly. Why in our own minds do we explain these actions so readily upon a basis of malevolent motives and emotions? Why are there so many cases of closely allied character where there are unquestionable evidences of such accompanying psychic states? Why do cases of the type quoted so readily of themselves gravitate into unquestioned malevolence? Why this exception to the general law, in the instance of these alien emotions and movements, which teleologists and symbolists have so forcibly urged in the cases of other psychic and physical states of children?

Our love of a rule without exceptions could almost make us wish, for the sake of the teleological and symbolic theories, that civilized occupations of life and institutions did not exist. For were the world still savage or even in the brute period, were our children young savages or brutes, whose future adult activities were to be in a world of savage or brute institutions and occupations, where individualism and not altruism were the ideal, then the teleological and symbolic principle would apply with a nicety and almost perfect exactness of detail. The movements which our children use in their crude and instinctive movements coupled, seemingly, with hostile emotions, or partially divorced from them in their invented games, are just the movements which they would by necessity use, as full grown men or brutes, in their daily struggles for existence—pursuit,

throwing down, beating, striking, shaking, kicking, throwing missiles, etc. The dance of triumph, the laughter of satisfaction in the act of victory or of vengeance, the clapping of hands, are all associated movements of the former, entering into the regular daily life of male savages. In the same way these alien emotions would not require an explanation by demonology, but would appear in a teleological and symbolic light as natural, reputable and virtuous. They could be classified, without exception, under the same headings as love of dolls, self reliant courage, religious awe and loyalty to home. In modern society the individual is separated from the actual pursuit and capture of his animal food by a series of slaughter houses, butchers and perhaps traders. When he is wronged by another individual he is separated from the activities and emotions of capture, trial, judgment and execution of punishment, so that we have come to regard these activities and emotions as wrong and morally sinful. With the savage and brute there is no such separation. In the brute and savage the moral duties of capture, trial, judgment and execution of vengeance are all vested in one person—the aggrieved. Justice, vengeance and hatred were in that world by necessity synonymous virtues. It was the moral duty of the savage to seek and slay the one who had wronged himself or his household. It was the duty of the women and the children to torture captives of war. The activities of dancing around the tortured captives, of laughing, clapping the hands, etc., were not only legitimate sources of pleasure, but in every way morally respectable. Their codes of moral etiquette required their women to practice exquisite codes of cruelty, to throw themselves into emotional hysterics over the gory trophies of the chase and war. Their children were taught and encouraged to torture every living thing and to endure torture.

Such was the daily duty of primitive man and, in narrower lines, of brutes. These malevolent emotions and these activities of the chase and war were bound in association. The egoism, antipathy and kind-hating animosity of savage life, with individualism as an ideal, we are forced to replace by other emotions and other activities, in our civilization, which has altruism and mutual dependence for its ideal. Under the recapitulation hypothesis we may expect the emotional life of the former generations to be carried over and overlap the new civilization.[1] [2]

[1] Spencer (Psychology, Principles of Psychology, § 514) says, in speaking of the distinction between sentiments generated in the individual and sentiments generated in the race, " . . . . there are sentiments organized out of experiences which, being the same for ancestry as for race, are cumulative in successive generations and they are therefore inherited in such developed forms as to show themselves in advance of individual experiences. Such inherited sentiments may

This explanation of these singular traits of childhood finds an apt fitting into the doctrine of the unconsciousness towards which modern psychology and recent investigations of neurology are so significantly tending—the view that our conscious existence is only a fragment, probably a very small one, of the whole sphere of mentality; that consciousness only crops out here from the great subliminal region of unconsciousness, as fragments of a fence from out a snowdrift. Underneath this drift of consciousness may not the conscious fragmental projections find their causal relations in strong hereditary chains of association inexplicable only upon phylogenetic survey? From a standpoint of reason which insists upon a manifest chain of causes, we satisfy ourselves by calling them instincts and let them go at that.

### III. The Fighting Instinct.

1. I know a boy who used to give the rest of the boys the choice of two things, agree with him or be beaten by him. That boy used to laugh at those who agreed with him, as he knew they were afraid of him. If he heard of any one opposing him he would say: "Never mind, I will have an interview with him."

2. Charlie (14) would not let any boy pass over the pavement in front of his house without trying to pick a quarrel or fight.

3. John (9) lived next door to a very small and weak boy. John would waylay this boy in a quiet place and make him fight. When the child cried, John would stand back and laugh at him.

These instances typify a common instinct to engage in the fighting movement. The cause for fighting is generally slight, vague, has no existence whatever, or is really invented to satisfy the impulse for fighting. Mere existence of any other boy, in

---

be looked for whenever the conditions of life have been such as to make certain kinds of acts and certain kinds of relations to surrounding things, living and not living, habitual sources of gratification to generation after generation. And we may expect to find such sentiments strong in proportion as these acts and relations are connected with enjoyments frequently, directly and clearly."

[2] Ribot (Heredity, p. 335) says: "to sum up, the consequences of heredity have been found to be twofold. Now it builds for the future, making possible by the accumulation of simple sentiment the production of sentiment more complex. Again it goes back toward the past, setting up again forms of sensitive activity once natural, now in discord with their environment. For there exists in the bottom of a soul, buried in the depths of our being, savage instincts, nomadic tastes, unconquered and sanguinary appetites which slumber but die not. They resemble those rudimentary organs which have outlived their functions but which still remain as witnesses to the slow, progressive evolution of the forms of life. And these savages instincts, developed in man during the past while he lived amidst the forests and streams, are from time to time recalled by heredity by some trick which we do not understand, as though to let us measure with the eye the length of the road over which we have travelled."

the boy's mind, seems to be ample *causa belli*. Two roosters in the barnyard, or two strange dogs in the street, exemplify this principle. School principals, called upon to adjudicate boys' fights, can offer corroborative testimony as to the extreme intangibility of causes and motives in the majority of fights. The impulse seems to be, as it were, the fragment of a chain of actions, the causal part of which has been lost, or at least does not appear distinctly above the threshold of consciousness.

There are forty-four cases reported of this motiveless egoism inclusive of the fighting instinct. Where requisite data are given, the following facts are shown: of the tormentors, thirty are boys and thirteen girls; nine are five years old or under; nine are from six to ten; eight from ten to fifteen. In twenty-one cases the tormentor is older than the victim, and in one case is younger. In fifteen cases the tormentor is a playmate, in three cases a brother, in one case each a sister and a cousin, and in eight cases is apparently unknown to the victim.

## IV. Egoistic Assertion of Authority.

1. A child seeks the companionship of small children, over whom he domineers by reason of greater strength or age. In many cases it is to be observed it requires but slight additional stimulus to cause the impulse to run back into old channels, as it were, and the child manifests the malevolent movements and feelings of the first rubric.

Willie (14) played with boys much younger than himself and when tired of play he would throw away their hats, throw the little fellows into the mud, cuff their ears, and always send them home crying before they had played an hour.

2. Boy (14) at school teased and annoyed the smaller boys, and whipped them cruelly. If they defied him he would not bother with them much.

3. M. (11) used to chase from school a flock of small children, telling them that his mouth would stretch and that he would swallow them, that he would throw them into the hedge or that he would turn loose his bull upon them.

4. F. (10) has a lofty, overbearing way, never chooses society of those near her own age, but little girls whom she orders around.

2. The oldest child in the family early realizes his seniority and is inspired to compel respect for his authority.

1. One day M. (10) was left alone with his four younger brothers and sisters while his mother went to New York. He showed his authority in a rough manner; slapped one child's face, would not give another a piece of bread and butter and persistently kept the other two from playing. F. (6) the largest child in the nursery "bosses the others with an iron hand." A large girl when her little sister shows a rebellious temper forbids her to say a word, makes her run around the house, or upstairs, until the child is tired, or run to the store and back. M. (13) says to his sister F. (10) "hippity," whereupon she

must get up, and when he says "hop," she must hop until he tells her to stop.

3. From Ireland's standpoint, we can see the possibility of a tyrannical despot should the following children grow up in a state of arrested development. There is evident the germ of the impulse which gloats in compelling others to realize that they are in a despot's power. It is said of the tyrant emperor, Caligula, that one night at a feast, lying beside two consuls, he broke suddenly into a boisterous laugh. Upon their inquiring the cause of his jovial merriment he replied: "I was thinking that I could, by a single nod, have both of you strangled."

When about 7 I (female) had two playmates (8 and 10). They teased me until life was a misery. They would make me wait on them and do many disagreeable and bad things. One day they made me get under the bed, and then they threw sticks of wood at me until my face and hands were black and blue. After that they shut me in a dark closet. Another time they made me lean back on a backless chair until head and heels were on a level. The reason I did these things was because I was afraid of being more severely injured if I told on them. They would induce me to do wrong things and then threaten to tell if I did not do something else for them. They invented the punishment for rebellion as follows: I was to get down on my knees to a certain young grocer, at the time they should dictate and sing

"Oh Clinton if I have found favor in thy sight,
Oh spare my life at my petition and my chickens at my request."

It was never carried out, but I had an awful fear of being forced to do it.

There are forty-four cases cited under this paragraph; of the tormentors 26 are boys and 7 girls: under five years, 3; from six to ten, 6; from ten to fifteen, 14; over fifteen, 1. In 25 cases the tormentor is older than the victim, and in one case younger. In 15 cases the victims are boys, and in 14 cases girls. The tormentor is a brother in 4 cases, a sister in 3, a playmate or a schoolmate in 13, and an apparent stranger in 5.

## V. Obtaining Property, Service and Obedience by Bullying.

The former rubric expressed the type of exhibiting power without a practical purpose. The present type unites to the former purpose a practical utilitarian end. The child uses his authority to obtain property, service or obedience. This order of presentation from abstract to concrete, while perhaps the logical order, is probably not the order of development.

1. A boy (9) goes up to a group of smaller boys playing marbles, puts their marbles in his pocket and walks off.

2. The first time I wore my new pair of skates, a big boy asked to look at them. He put them on and I had to appeal to the teacher to get them back.

3. A small boy was riding upon a wagon. A large boy knocked him off and took the place himself.

4. M. (2) tyrannizes over his brothers and sisters. If they get any toy, it will not be long before he has them all.

The above represents simple appropriation. Popular notion is prone to ascribe to these acts a consciousness of sin as though the child were born with the ten commandments neatly printed upon an embossed card. Lombroso voices the sentiment of the school of modern criminologists when he says that the child's notion of right is what mamma allows, and of wrong what mamma forbids. The following examples bear upon this point:

1. Dora (3) bullies Mamie (4) into giving up everything, toys, sweetmeats, cakes, etc. Mamie is afraid to tell, as I have heard Dora say to her: "If you tell my mamma, Mamie Reed, I will cut your curls off and then you'll die."

2. Mother gave John (12) and Mary (8) an apple to divide between them. John took the larger piece by far and made Mary promise not to tell upon the alternative of not getting any at all.

The following are types of primitive blackmail and at the same time illustrate the strength of fear of consequences as a controlling force, and bear along the line of Spencer's generalization (Data of Ethics) of a study of primitive peoples, that fear of the living is the basis of human government.

1. One time at school I told a companion some trifling thing another girl told me not to tell. Some days later my confidante asked me for some ginger buns I was eating. I did not want to give her any, but she threatened that if I did not that she would tell the girl that I had told the secret. For several weeks I fed her upon ginger buns.

2. Perla (11) accidentally saw a portion of a classmate's examination paper. The owner was aware of it, and for a long time Perla was made to write weekly compositions for the other girl, under threat of exposure to head teacher.

3. One summer day I was sitting near the window and I heard a little Irish girl say: "Ain't those flowers pretty, Nellie? Go in and get them." Nellie would not do it until her friend said: "If you don't get them I will pull your ears. I am going right home and tell your mother what you said to teacher." Nellie stealthily got the flowers.

4. Ethel (4) threw some dirt in the wash tub of clothes, and her brother (6) who saw the act compelled her later in the day, when they were given some grapes to yield a portion of her share to him, or he would expose her.

5. Boy would whip his younger brother until the latter swore, and then under threat of exposure would make the younger do the chores for him.

6. M (10) told his sister (7) that unless she carries the lunch basket (a duty assigned to him by their mother) he would tell that she had monopolized the lunch.

7. Boy under the threat of exposure of school whipping to his parents became a slave of a neighboring boy for a long time.

8. At school older girls made little ones run errands, buy candy and cake (which little ones never shared) under fear of exposure for certain misdeeds.

This spirit of blackmail becomes mutual in a number of cases of the type of the following :

1. V. (4) broke a window, and F. (12) said she would tell on him. He replied that if she did he would tell about her cutting the cake.
2. A large boy struck a smaller one and threatened that if the smaller one should tell that he would tell who stole the eggs.

A number of cases of bullying to obtain service or obedience are carried out by playing upon fears of animals or forms of bugaboos. The papers show that adults are addicted to the use of such means to secure obedience. The victims are told that the "bad man," the "bugaboo," and the ragman will catch them or carry them off, or Jack Frost will bite them, etc.

There are 90 cases in this classification : under five years, 3 ; six to ten, 12 ; from ten to fifteen, 9 ; over fifteen, 2. Of the tormentors 47 are boys and 19 girls, and of the victims 41 are boys and 18 are girls. In twenty-eight cases the tormentor is older than the victim, and in three cases younger. In fifteen cases the tormentor is a playmate. In four cases apparently a stranger ; in eight cases a sister ; in four cases a brother, and in four cases a nurse or parent.

The spirit of those incidents tends to suggest some very self-contradictory conditions. In the victim there certainly is a very distinct consciousness of the "mine," and any spoliation of the "mine" is promptly and vigorously met by impulses of defense. On the other hand the bully's notion of the victim's "mine" certainly seems on all grounds of inference so extremely hazy and vague, as to suggest that rarely, if ever, rises above the threshold of consciousness. We can, as we do, it is true, presume that the bully steals with a clear, moral consciousness of the victim's rights, but to make such a presumption is to project into the child's mind something for which the only warrant is analogy with the adult's conception of property right. This notion of property right is most highly abstract and rests upon a consciousness of justice, and one essential idea of justice is that into it must enter two standpoints of view. It implies that the other side, the victim's side of the case, rises into the bully's consciousness and is weighed by him. In the face of the individualism and simple egoism which we find manifesting themselves in other states, have we any right to assume that the victim's aspect of the case forms any considerable part of the bully's attention ? What experiences in the individual, much less of the race, are there, which would present any warrantable basis sufficient to build up nervous processes so powerful as to present in an egoist's mind his victim's view ? Is it not altogether more probable that the considerations of egoism and the impulses which flow from it are all that could command attention ? We have here a repetition of the fragment-

ary principle. The child sees one side, and his own side. When he is bully, the impulses which crowd into his mind are "how to get it," and the means that would present themselves are those which have discharged themselves in the world of individualism—those of pursuit, frightening, striking and the emotions which go with these movements, etc. When he is victim the impulses are those which have been previously used in similar cases—those of defense, flight and the emotions of anger or fear. For the child to have an idea of property right he must have in mind both these views, and besides have accomplished a synthesis of the two. The child's ideas of property are not different from those that civilized institutions require, but they represent a part of it; one part is in seizing property and the other in defending it. Both are intense, as separate fragments, but their simultaneous appearance in the child's consciousness is certainly not safely assumable. That there is no moral sense in the matter, that the aspect of the case from the victim's point of view is not in the bully's consciousness, is supported by the character of the inhibitory influences. The only inhibitory influences of which we have evidence are those of fear of punishment, not consciousness of a moral wrong. John unblushingly takes the lion's share of the apple, and he feels no incongruity in forcing his sister, whom he has thus robbed, to be an accessory to the theft in order to prevent the evil of punishment from following him. The same feature is illustrated in a large body of data in which the bully asserts authority by actual bodily abuse or threats, gets into mischief and then attempts to protect himself by threatening punishment if the victim exposes him. There is in these instances little if any ground for postulating any image of the victim's standpoint. All that is manifest is much simpler; he apparently couples to certain bullying acts by previous associations, a possible infliction of pain on himself, just as the burned child thereafter hesitates to put his hand in the fire. Because he fears to put his hand in the fire thereafter does not imply that he supposes a moral wrong in the act. Is there greater reason to suspect a conception of morality in the former case? The following instances illustrate these fragmentary egoistic impulses:

1. I saw a little boy slap his sister, who, amid her sobs, said that she would tell her mother. The boy became frightened and said that if she did he would slap her again.

2. Large boy and two small boys were playing horses; large boy was driver; one of the small boys grew tired of the game and ran away; large boy caught him and whipped him; little boy cried and said that he would tell his mother; large boy said that if latter did he would whip him again.

3. Two boys said to a third: "If you tell any one we took those flagsticks to make kites we will whip you."

4. Although forbidden to loiter after school, Harry (11) persists in stopping to play, and sister Ethel is made to wait for him and to carry his books until they are nearly home; he says that if she tells their mother he will whip her; when he reaches home he tell his mother they are late because Ethel walks so slow. If he gets a whipping, he whips her afterwards, and warns her that if she tells her mother he will whip her again.

5. L. (6) told his sister that if she told he broke the cellar window he would tell that she had been picking at the cake; neither told.

6. I have heard Frank (10) on many occasions say to John (6): "If you don't give me that I will tell mamma what you did, and you know what you will get."

7. Elder brothers and sisters would tell James stories of tramps and then run away. They threatened that if he told his mother they would duck him in the rain-barrel.

## VI. Tormenting.

Under this head 92 cases have been classified. Several somewhat differentiated subdivisions are to be noticed:

1. The tormentor becomes aware of some conduct which is peculiarly objectionable to victim, and he therefore uses this as a means of aggravation.

1. M. (6) knows that another boy does not like to be touched. M. will engage this boy in conversation and persistently tap him on the shoulder.

2. M. (9) knows that F. does not want her hair touched; tied it in hard knots while she was asleep.

3. F. (3½) knows that M. (4) does not like to be hugged. She pursues him and forcibly hugs him.

4. Demure maiden of adult years reminiscently says that at 13 she could not bear to be kissed. Her cousin, who was aware of this weakness, would kiss her until she screamed with rage.

5. F. (7) very much afraid of fire, was pushed against the stove by her brother and badly hurt; he became frantic with grief.

2. A seemingly common means of tormenting is that of barring the passage of another. A boy dances in the path of his sister on the way home from school laughing, making threatening motions with his arms and enjoying her annoyance. In the cases mentioned this form seems to be particularly aggravating and generally results in anger, or tears, or both.

3. An allied instinct is that of interfering and hindering those who are busily engaged.

1. F. would catch her mother's skirts and drag her back; the more she was told to stop the more she enjoyed doing so.

2. M. (3) put his foot under the rocker so that his little sister could not rock herself.

3. F. (3) threw book her mother was reading upon the floor; her eyes sparkled and she laughed.

4. F. (12) put her arms around her elder sister and held the latter fast when she was busy; persisted.

5. M. (9) shook the arm of his sister when she was trying to thread a needle. She cried, and then he threaded it for her.

6. M. (11) would put his foot on his younger sister's chair and shake it; she screamed and said: "Now, Archie, I tell you to stop." He replied: "Why, Alice, I am doing nothing." "Yes, you are too, now, just stop." He would keep it up until she cried and some one interfered, and then he would make grimaces.

7. F. (4) was building block houses. M. came in and knocked them over and then went into the next room and waited until she had rebuilt them. Then he came in slyly—one could tell by his eyes, which were dancing, that he was in mischief—and pushed them over again. This performance was repeated several times. F. became greatly provoked and M. enjoyed her discomfiture.

There is a great variety of other cases all illustrating this mental temper, which on the one side seems egoistic, and on the other socially playful. M. jerks chair upon which his sister is about to sit down. F. (6) unties apron strings of her sister (4) and refuses to tie them again. M. in school pulls another boy's hair, pinches him and then takes his pencil and snickers with delight. Little girl playing with M. (5) finds she could give him great annoyance by pulling his coat, which she does repeatedly, laughing with pleasure.

Of the 92 cases classified of tormenting, the following facts, where data are not missing, are shown: of the tormentors 13 are five years and under, 28 from six to ten, 16 are from eleven to fifteen, and three are over fifteen. There are 63 boys and 22 girls. In 13 cases the tormentor is older than the victim, and in 13 cases is younger, and in 7 cases the victim is an adult. The tormentor is a brother in 18 cases, a sister in 7, a schoolmate or playmate in 13, a son in 6, a daughter in 1, a niece in 1. In 34 cases the victim is male, and 47 cases female.

These cases seem to bear a derivative relationship to the rubric of purposeless cruelty, in the common possession or pleasure and satisfaction in the pain and discomfort of victim. The child is still an egoist in a group of independent individuals. But these activities have undergone some radical modifications:

1. The tormentor and victim are near relatives or are playmates, and under general circumstances their relations must be presumed to be friendly and even affectionate.

2. The downright physical cruelty is somewhat mitigated, and the original energy seems to have been drafted off into forms of cruelty more psychic or remotely physical in character.

3. The most important modification, however, is the clear visibility and perhaps dominance of the play impulse. The traces of the sentiments of anger, hatred, or vengeance have completely disappeared or, as we might say, have been broken from the chain, and in their place has been linked the social play impulse. It is probable that the play impulse existed in the former rubric, but was concealed by the dominance of ego-

istic activity. This is another illustration of the fragmentary character of children's thought which often leads us to mistake a single link for an entire chain, and makes it possible for egoistic sentiments to exist side by side with warmly social feelings and in the same individual. The psychologist Mantagazza (Der Hasses, p. 22) offers some introspective evidence bearing directly upon this point:

"In spite of my half hundred years I cannot resist the impulse from time to time to indulge in innocent teasing, *although I feel incapable of rancor, and from head to foot am charged with a well-wishing feeling*. Some years ago I went one evening to the room of my best and oldest friend, and there I saw his shoes. I could not resist the temptation to throw one of them upon the neighboring roof. Not for treasure would I have missed the joy which I thereby received! As an eager psychologist I then thought of my grandmother who advised her daughter-in-law to rub her hands with thistle leaves to make them white. I had inherited the same blood in my veins and was no degenerate descendant."

The following case is one of a type of pregnant suggestion of the possibility that two fragmentary and opposed emotions may exist in the same child mind:

M. (9) blew over the card houses of F. (7) every time she built them. She grew angry, stamped her foot, and told him to stop. M. was in great glee. Finally F. cried. Thereupon M. showed sorrow, built for her some very tall card houses and promised not to blow them over again.

Why is it that at one moment M. is an egoist in a world of individualism, gleefully exuberant in the distress he inflicts upon another, and at the next moment a sympathetic member of altruistic society? Are these the acts of a continuous and homogeneous consciousness, or are they to be regarded as separate reactions from fragments of consciousness—fragments each with a separate phylogenetic origin and development?

## VII. Hazing.

There are 52 cases of hazing reported. Among the forms given are the following: Dousing the victim in cold water; pretending to bury alive; letting down over a precipice by a rope; holding head under water; forcing victim to do undignified acts; making victim walk blindfolded over sharp stones with naked feet; pretending to cut throat; tying to tree; painting body; throwing in river; tossing in blanket; shaving head.

Hazing seems different from the ordinary cases of bullying or tormenting, in that their aggressors act not as individuals but as a group; it manifests itself apparently in the years from

15 to 20, and chiefly occurs when they are in colleges. An important study would be to determine whether the impulse is one characteristic of any certain age or is merely the result of a general egoistic impulse, already described, under specific conditions or under the influences of tradition. Have we indeed in this phenomenon the blending of the egoistic impulses of early childhood with the social and gregarious instinct of incoming adolescence? It is sufficient for the limits of this study, however, to observe that in a certain form the movements and certain psychic states of our investigation persists, until adult age, at least, under certain conditions. A few cases are given of hazing forms in the lower schools and in younger children; but the majority of these cases show the finger marks of imitation of college customs.

### Teasing by Exciting Weakening Emotions.

There seems to be in the mind an instinctive respect and even fear for the calm, emotionless individual who never manifests exciting emotions and especially the weaker ones of fear, anger, shame, envy, etc. Chesterfield in his approval of this type of man voiced a common instinct. We have an instinctive satisfaction in seeing our enemy fall victim to any of these emotions. There is an innate conviction that by doing so, our enemy is less dangerous. We feel that in a contest of any kind we have gained a distinct advantage when we have forced our adversary into any of these states, and moreover we feel a joy in doing so. As abstract as the expression of this general principle may be, it would seem that no class of persons were more keenly conscious of it, at least in concrete form, than children, even the youngest. In the remaining rubrics of this study, the dominant impulse which seems to animate the tormentor is to excite in the victim the expression of these sentiments, fear, anger, shame, envy and disappointment; and the expression of these seem to constitute the chief source of the teaser's pleasure. Over one-half of the eleven hundred cases show this impulse.

### VIII. Excitations of Fear.

1. Fears of evil to self.

1. Charlie (7) and Minnie (5) were playing in the yard; strange boy appears in the next yard; Charlie told Minnie that the boy had a knife and was coming to cut her ears off; M. ran and C. laughed.
2. Willie was afraid of dogs. Henry put Willie on dog's back. Willie screamed and cried; H. laughed.
3. M. (4) loves to tell his little sister she will not grow any bigger, that her hair is flax and that the rats are under her bed; she cries.

There are a great variety of these cases, 46 instances in all; the chief forms are those of fearing that ears, curls or toes will

be cut off, that they will be lost, that they will be punished, that they will be buried alive, etc.

2. Fears of snakes, worms, insects, etc.

1. Charlie (11) put a snake in his pocket and asked one of his female relatives to feel the big bird; she put her hand in his pocket and screamed; Charlie laughed and pursued her. Then he tied the snake around the door-knob and laughed when his mother accidentally took hold of it.

2. M. (10) induced his sister to climb into a tree. He put a caterpillar in the crotch; sister scolded and M. laughed.

3. M. (10) shouting and laughing chases his sister with a cloth spider.

In the same way teasing children chase each other with hats, raw cotton, worms and jack-in-the-box.

3. Fears of dark, ghosts, etc.

1. A girl left alone with small children at night told them ghost stories and then put them in a dark pantry, frightening them so much that one of the victims in adult years can see "eyes gleaming with deviltry."

2. Boy, after telling brothers and sisters ghost stories at night would go about halls, dressed in a sheet, uttering sepulchral groans.

3. Boarding school girl rubbed phosphorous on her face and went about poking her flaming head in the sleeping rooms.

4. We find a sort of an approach to the altruistic feeling in a few cases where the victim is frightened by impending danger to pets or friends.

1. A brother enjoyed pretending to choke his sister's cat or to give it to the dog.

2. A little girl (5) was greatly teased by threats of carrying off her little brother.

3. A little sister was greatly tormented by a cousin, who would tell her that her brother had been lost.

4. Mamma would tease Edith (5) by pretending to cut off papa's hand.

Of the 91 cases of teasing by exciting fears, in 52 cases the tormentors are males, and in 32 cases females. The ages of tormentors are distributed as follows: five years and under, 2; from six to ten, 29; from eleven to fifteen, 15; adults, 5; in 18 cases the tormentor is older than the victim; and in one case the victim is older (excepting two cases of children teasing adults, and in four cases of adults teasing children); in 15 cases the tormentor is a brother; in 5 cases a sister; in 4 cases a cousin; in ten cases a playmate, and in one case each a nephew, son, daughter, nurse, mother and aunt; of the victims 33 are males and 43 females.

Aristotle analyzed the emotional pleasure in the drama, and his analysis, which has stood the test of centuries, recognizes as its chief constituents of its power to be fear and pity—the one the great principle in the world of individualism and the

other the ideal of the altruistic world. For centuries then in the drama on the stage, and in the drama of books, one main source of pleasure has been in witnessing exhibitions of the emotions of fear. About the camp-fires of savages there were in mimic and savage dances the expressions of this emotion. But to savages and to brutes fear had a more real and personal meaning. In the chase and in the combat when the victim turned in flight or sunk in fear, or around the captive of war whom savages tortured in order that they might witness exhibitions of fear, we see the reality as well as the universality of the impulse. Women and children in mad frenzy joined in this latter luxury. We can believe the love of beholding this emotion the leading element, for if the captive showed fear, the torturers' delight became hysterical and frenzied, and if he showed no fear his memory was honored and his blood was drunk, his heart, his left eye or his entire flesh was eaten, that the eaters thereof might inherit his courage. This must indeed have been one of the most universal of all emotional pleasures. It was the emotion provoked most intensely at the most intense moments of life. It needs no stretch of the imagination to believe it should be deeply intrenched with many of the nervous reactions which give pleasure.

It is to be noted that in exciting fear as in tormenting, the tormentor bears the victim no personal ill-will. His impulse to annoy belongs to the egoism which seems to present only the teaser's side of the case; there is little evidence that the victim's side of the matter rises into consciousness, either with children or with savages.

## IX. Excitations of Anger.

1. Susie (14) would make M. (7) angry and furious and then hold him fast by the wrist, tormenting him, and telling him what she would do with him if he did anything to her after she released him. Sometimes she would, after getting him angry, tie him to a tree. The like seemed to be to anger him and then to show him that he could not do that which his anger prompted him to do.

2. Hannah (9) was fond of making faces at her older brother; he would be provoked and appeal to his mother for protection, or he would run after Hannah and try to strike her. She would keep up a continual laugh.

3. John (15) loses his temper very easily. His playmates will sometimes say: "Let's get John off," and they will pitch the ball out of his reach or hide his hat.

4. Little girl (10) would throw things when teased; tormentors would stand at distance and tease her.

5. Ritta (3) found that Flora (2) would scream if she pushed her; after that R. took opportunities of pushing F.

6. Louisa (8) had the habit of crying at every little thing. When the children at school found this out they would pull her hair, knock books out of her hand just to see her cry, and then they would call her "Cry Baby."

7. When I was five years old, a neighbor girl would stand up by her fence and tease me by rubbing one forefinger over another and making a hissing noise. I would scream, but she would keep it up till I ran in the house.

8. I know teasing is often used to test the cry point, because I (female) remember when I was 13 years old that this was my main motive for teasing my sister.

The above present two types of a very general class of data. The tormentor gives annoyance in some way, and the victim's nervous system, seemingly, has three alternatives offered it: first, to resent; secondly, to show submission and perhaps to cry; thirdly, to appear indifferent. If the victim reacts along either of the first two of the alternatives, the tormentor in turn reacts in the form of movements indicative of pleasure; the "laughs," "enjoys," "is amused," "chuckles," "a mischievous twinkle is in his eye," "his eye gleams," in the language of those reporting. If the third alternative is followed, that of indifference, the teasing generally stops and the tormentor shows respect for the victim, as one respects the emotionless, self-possessed individual. The motive, if what seems a blind personal instinct can have a motive, seems to be that of a desire to witness in another person the play of some weakening emotion. The means taken by the tormentor to excite these states are varied. Some of the principal cases are here presented.

## X. Children Perform, or almost Perform Certain Forbidden Acts.

1. Willie (18 months) was sitting at the supper table. His mother forbade his touching a knife; she turned away, and in an instant out went the little hand and almost touched the blade; the child all the time closely watched the mother; the mother saw him and slapped the hand; the child cried, but nevertheless in another moment, before he had finished sobbing, he again put forth his hand toward the blade.

2. George (2½) was told by his father not to touch certain papers; the child immediately put his fingers upon them.

3. A. (3½) was playing near the baby; his mother said: "Be careful, dear, don't strike the baby." At once the child threw out his hands as though he were striking the baby.

4. Ethel and Walter (4) forbidden to go off the porch, would go down to the lower step, look around at their mother and laugh.

5. Boy (2) forbidden to muss his hair after it had been combed, would put up his hands quite near his hair and go through the motions, crowing and laughing.

There are 131 cases all practically identical in plot. The child either performs, almost performs, or pretends to perform, the forbidden act; then, generally he laughs, or in some way shows pleasure. Four of the young tormentors are termed "infants;" six are between one and two; 16 are two years old; 3 are three; 27 are four; 14 are five; 5 are six; 7 are

seven ; 6 are from seven to eleven ; 1 is fifteen, and in eleven cases the age is not mentioned ; in 67 instances the child is male, and in 57 is female ; in 37 cases the forbidden is actually performed ; and in 77 cases the forbidden act is almost performed or there is a pretense of doing so. In 32 cases the child is recorded as laughing, smiling, looking roguish, having a wicked twinkle in his eye, or his eyes are sparkling ; in 33 cases the child watches the person who forbids ; in 38 cases the child is recorded as acting tantalizingly.

This class of data, it is to be observed, shows that the spirit of antagonism for authority comes in with infancy, and if there is any quantitative significance in the 131 cases presented, the instinct seems to reach its maximum in the fourth and fifth years. The impulses thus have the ear-marks of instinct ; their frequency, the identity of form and promptness of reaction are suggestive of reflex action. There is, too, in the readiness with which the subjects react and resist, after being forbidden, the notion of hypnotic suggestibility ; the child told not to touch the knife in his hand immediately reaches out ; the child told not to touch certain papers, seemingly cannot resist touching them ; the idea of going out, though negatively presented, carries the child towards the door, or he stands on the last step. It is as it were that the egoistic and antipathetic instinct serves as a power to transform a negative command into an affirmative one, so that the command, "Do not do this," is transformed by pre-disposed impulse of antagonism into "Do this." Nevertheless, because this impulse is a broken fragment in the debris in the terminal morain of animal nature, its presence does not preclude the existence of other impulses of a contradictory principle. The child may at the same time be affectionate, and yet at the accidental excitations of old impulse channels he gives tone to discordant notes.

### XI. Teasing by Taking or Hiding Property.

We already have had cases in which the child has, in a bullying way, taken the property of others for an utilitarian purpose. In this former class the dominant purpose was clearly the obtaining of the property in which the satisfaction of pleasure in the emotions of the victim was secondary, if really a conscious element at all. This chain of activities seems, as it were, to have been broken in the middle, and the present cases are those with no utilitarian purpose, and if there is any motive above or below the threshold of consciousness, it is in the satisfaction and pleasure of the victim's weakening emotions.

1. Alice would take the playthings of Florence (4) saying: "I've got your ball and you can't have it." Florence would cry, kick and strike.

2. Charlie (5) takes away, one by one, the blocks with which May (3) is playing; she becomes annoyed and cries; Charlie's amusement increases proportionally.

3. Harry (8) would steal the toys of Theo (4) to hear her scold, then he would bring them back, though he would dance with glee when she screamed.

4. When I (female) was 13 years old, a boy of 16 took a pole I was carrying. I begged him to give it back. He would make belive giving it to me and then take it away saying: "Do you want it? Don't you wish you had it?" and all such mean things. I became very angry and tried to scratch his face and cried. He told his mother later, in explaining the affair, that I was a cry-baby.

5. Lyman (3½) teasing the house girl by hiding things and refusing to return them.

6. Two boys at school were debating as to whose hat they could run away with. One suggested a certain boy's hat, but the other said: "No, we might keep it all day and he would not get mad; let's take Joe's."

There are 53 cases; 34 males and 12 females: five years and under, 5; six to ten years, 12; eleven to fifteen, 11; over fifteen, 2. In 27 cases the victims are male, and in 22 cases female. In 16 cases the tormentor is older than the victim; in two cases younger. The tormentor is a brother in 12 cases, sister in 3, a companion in 9, a cousin in 2, an aunt in 1, a mother in 1. In 25 cases the victim's reactionary movements are described as being angry, scolding, cross, annoyed, pursuing, striking, scratching, kicking, throwing missiles or getting even. In 18 cases the descriptive terms are crying, running home, hugging, screaming and telling mamma.

## XII. Teasing by Calling Names.

It is perhaps unnecessary to take space to quote data for this familiar and simple type of teasing. There are 58 cases reported. In 26 cases the tormentor is male, and 7 cases female; in 26 cases the victim is male, and in 25 cases female. As a rule, this species seem to be done by children in groups.

The name applied generally is in some way related to personal peculiarities: a long and slender girl or boy is called "Broomstick Legs," "Long Legs," "Beanpole," "Gawky;" thin children are called "Skinny;" fleshy ones "Fatty," "Hubity-hoy," "Big Lumix;" red-haired children "Sorrel-top," "Red-headed Gingerbread," "Reddy," "Torchlight," "Headlight," and "Firehead;" freckled children, "Speckled Beauty;" a boy with disfigured mouth, "Catfish Mouth;" a boy with an extra joint in the thumb, "Crooked Thumb;" hunchbacks, "Crook;" a girl with peculiar eyes, "Queer Eyes," "Pig Eyes;" girls with dark complexions, "Gypsy," "Indian," "Nigger;" children wearing spectacles, "Four Eyes," "Mamma's Old Man;" those who cry easily, "Cry Baby,"

"Hand Organ;" a boy always dodging, "Possum;" a boy from the country, "Sparrow," etc.

In 27 cases the reactionary movements are described as those of anger, striking, throwing missiles, pursuing, scratching, growling, kissing, stamping foot, etc. In 7 cases the terms of description are those of crying and telling mother; in 2 cases the victim appears indifferent and the teasing ceases.

The impulse to coin names by some association with personal peculiarities, either of a complimentary or uncomplimentary character, is a very general character with the North American Indians, and African tribes obtain their names in this manner or as a result of some deed of prowess. It is the habit of many tribes to begin a battle with an interchange of uncomplimentary epithets; it seems to have excited the opponents to a fury of rage and afforded mutual satisfaction in the application. This trait has been carried forward into civilization and takes many forms; in the duelling period the term "liar" was tantamount to a death challenge. It is of course not necessary to link this impulse of calling names in children with the same impulse in savages, in an hereditary sense, but the intensity and prevalence of the phenomenon is suggestive of a common neurological association.

## XIII. Testing Temper.

In practically all cases where the victim is, or successfully assumes to be indifferent, teasing soon ends.

1. Boys were teasing a strange boy, who after awhile remarked indifferently: "Do you think you fellows will be through pretty soon? you can't make me mad." Afterward one of the teasers was heard to refer to this boy as a fine fellow.
2. When I first came to a new school a large fellow punched me, slapped me and pulled my hair, and did various other things, just to see if I would retaliate.
3. One day we had a substitute teacher in the school. In the morning she spoke to a girl about the noise a girl's bracelet was making; that afternoon, by general agreement, nearly all the girls wore bracelets.
4. Alice (15) would stare at her brother (14); the more he was annoyed the more fascination she seemed to find in the aggravation.
5. My brothers would say something to make me blush, then they would cry: "Look at her blush." This would make me furious, and it does now.
6. When I was ten years old I pinned a paper "For Sale," on a girl's back, to see if she would get angry. She changed her seat.
7. I (female) used to stand before my little niece (2) and hold my finger in front of her; she would cry and show anger.
8. I (female) heard my sister once say that it made her very angry to have any one point a finger at her, so I did it. She became almost frantic, tried to bite and threw things at me. The more I did this, the more I wanted to do so.
9. Z., a friend of mine, was so teased by tickling that she became

very nervous and she would scream and sometimes faint if any one pointed a finger at her.

There are 68 cases in this classification. In 28 cases the tormentors are male, and in 20 cases girls. Of the victims 32 are boys and 30 are girls. In 4 cases the tormentor is older than the victim, and in 1 case is younger, and in 2 cases both are of the same age. The tormentor is a sister in 10 cases, a brother in 8, a companion in 9.

XIV. TEASING PEOPLE WITH PERSONAL PECULIARITIES.

I. *Old and eccentric persons.* 1. Boys would throw stones at an old, eccentric man's house, until he came out and angrily told them he was writing down their names and would have them arrested. They greatly enjoyed it.

2. I have seen a crowd of boys (8 to 15) standing about an old crippled woman, jeering her, and delighting when she scolded.

3. Becky, old, deformed and lame, followed by boys and girls who pull her cane, basket or dress.

4. Boys would get in front of an old rag-man who had St. Vitus Dance, imitating his motions.

5. Boy(8)pursues an old ragged scissors grinder, hooting and throwing missiles at him.

6. Mumbling old crazy man is teased by a crowd of boys, who throw things at him and pull his coat.

7. Robert (12) throws snow-balls between the legs of an old bow-legged negro.

II. *Hunchbacks, lame, deformed and maimed.* 1. Edith (7) provoked with hunchback Willie would say: "I would not have such a thing as that on my back."

2. Hunchback girl (11) was so teased by boys that she would not go to school.

3. Boys would induce a one-armed companion to try to do something requiring two hands, and when he would turn his pitiful face toward them and say: "O boys, I can't do that," they would be greatly amused.

4. A crowd of children yelled at a man who had lost both legs; some jumped up and down and laughed.

III. *Red-haired Persons.* Red-haired persons, and others possessing minor peculiarities: there are twelve cases of tormenting red-haired persons. The usual method is by the use of suggestive nick-names.

Other similar cases are those who are very tall, very stout, fat, lean, long-legged, freckled, straight-haired, very homely, untidy, and those with large feet, large heads, with peculiar eyes or peculiar complexions. A woman writes that when she was 10 years old her brother called her "Strings," because her hair was straight. She came to believe that no one was as homely as she and she did not like to meet people, and for years kept herself secluded. A girl of dark complexion was in the same manner kept from going in the sun, and a fat girl dieted.

IV. *Persons of Affected Speech.* There are 13 cases of this

kind. A boy mocks his tongue-tied sister. The boys would get a stutterer excited to hear him talk and then laugh at him. Boys will induce a tongue-tied companion to recite or sing. The spectators are not careful to conceal their amusement.

V. Children mentally deficient are treated in much the same way as those with defects of speech. They are induced to exhibit their peculiarities to the expressed amusement of the youthful spectator.

Of the 102 cases of exciting shame and ridicule of peculiar people, the tormentors are mentioned as male in 66 cases, and as females in 10 cases. The victims in 66 cases are males, and in 31 are females. In only one case is the tormentor recorded as five years. From five to ten years, 10; from eleven to fifteen years, 6.

## XV. Exciting Disappointment.

1. Grace (4) would offer Leo (3½) an orange, saying: "Want a bite?" She would put it under his nose and then withdraw it, and she herself would take a bite. She thoroughly enjoyed his disappointment, laughing loudly.

2. My brother, two years older than I, delighted in taking something I wanted, and as soon as I became impatient he would ask: "Will you have it now or wait until you can get it?" If I said I would wait, he would give it to me, for his fun was over, but if I said: "I will have it now," he would keep it out of my reach. This teasing was accompanied by tantalizing words and was kept up till I became angry, tried to kick or strike him, or cried.

3. My brother used to tantalize me by telling me (female) parts of the same story or of some adventure, and then he would refuse to give me the rest without much coaxing.

There are 23 cases of this character. Of the tormentors, 12 are boys and 10 are girls, and of the victims, 9 are boys and 10 are girls. In 4 cases the tormentors are of five years or under; from six to ten years, 4; from eleven to fifteen years, 7; over fifteen years, 1. In 4 cases the tormentor is a brother; in 2 cases a sister. In 9 cases the tormentor is older than the victim; in no case younger and in 2 cases the children tantalize adults.

## XVI. Teasing by Exciting Shame.

The data represents a considerable variety of forms of attacking the pride of the victim—pride of person, of family or of political party and of religious creed. Children who have been punished by parent or teacher, or who have done some act of which they are not proud, are jeered by others. A boy whose father was one-armed, was taunted with the fact and told that he would grow to be one-armed. A boy is taunted by his father's drunkenness. Little girls (5 years) are told that their fathers are not good or nice, and they become very indignant. A boy (7) becomes very indignant when others call his sister

Gertrude "Gertie." Children of Republican families are ridiculed by those of an adverse political faith, and a proud Southern boy in a Northern academy found life a burden.

Another common form is that of recalling some unpleasant or ridiculous incident of the victim's past life. A little girl who made extensive preparation for a party to which finally she was not invited, has her memory of the incident continually refreshed by her brother. A boy addicted to the purchase of "pepper pot," never hears the end of the story. A timid boy who bought a pair of skates and who was then afraid to use them, is frequently reminded of the incident in the presence of others.

A child who left school at recess, thinking she was dismissed, becomes the butt of much merriment. A town cousin who asks his country cousin if some pig-stys are peanut stands, is never allowed to forget the mistake. A considerable number of incidents of this kind arise from some mispronunciation, as when a little girl remarks that it is a "froggy" morning, meaning "foggy" morning.

### XVII. Exciting Envy.

1. Eva (5) visits Ruth (3) and tells her of all the nice things she (Eva) has at home which Ruth has not, and enjoys Ruth's expression.
2. Gene (4) would jump on her mother's lap, place her arms about her mother's neck and call her endearing terms, meanwhile looking sidewise at sister Elsie (2½) to see how the latter felt about it. After Gene got down, Elsie jumped up and went through the same performance.
3. Girl (4) and boy (3) were playing with the girl's toys. If the boy wanted any particular toy, that was just the toy she wanted. She enjoyed herself very much when he cried about the matter.

### XVIII. The Practical Joke.

1. Several girls sewed up the sleeves of a schoolmate's coat. When she tried to put it on we all laughed; she also laughed.
2. Dick (12) mixed raw eggs with the cooked ones at breakfast; laughed when his victim had made unpleasant discoveries.
3. William, fond of his grandmother, put some oranges in his valise as a present to her as he was about to take the train to visit her; cousins substituted croquet balls for the oranges; William was very angry; cousins laughed.
4. Boy (8) sewed up an orange peel and fooled people; he laughed.
5. A student sewed up in his chum's clothing some limbergher cheese, and for several days secretly laughed at his victim's annoyance and ostracism by his fellows.

The questionnaire called for incidents of the practical joke, and these are a type of the data which came in response. The difficulty of classification at once presents itself to determine what is a joke. If we admit that these are jokes, why are we not forced to admit practically all the data, for nearly all instances, from the standpoint of the tormentor, seem to excite or

tend to excite the most usual signs of the joke and feeling of humor—laughter and smiling, etc. The difficulty is the one which has so puzzled the psychologists of the metaphysical school in their treatment of humor, for they were utterly unable to find any general principle in objective conditions which would correspond universally to the subjective feelings of humor. Dr. James theory of the emotions, placing muscular movement causally prior to psychic feeling simplifies the problem, for under this hypothesis the real problem now takes the form: When do we laugh? or, When do we smile? etc. This problem is far too broad for the limits of this study, but so far as certain conditions of laughter enter the limits of the data under consideration, I believe some suggestive facts are manifest.

1. Laughter with the tormentor is not to be classified in any sense of relation to objective conditions, nor upon a basis of what in the mind of the victim, or even in the mind of a third person, might be considered cruel or not cruel, etc. The boy who had driven his victim up a telegraph pole and was stoning him, laughed. So also the boy who knocked down a strange boy, disordered his clothes and danced about him; the little kindergarten girl who pulled the hair of the girl in front of her, the boy who knocked down his little sister's block houses, the boy who chases his female relatives with a snake, the children who jeer or stone eccentric or peculiar people—all these laugh.

The child is an egoist, and he sees and feels only the egoistic and antipathetic side of the case; the victim's view and feelings do not enter his consciousness.

2. The child does not laugh in those cases, principally of bullying, where there is a complete chain of activities commencing with exciting impulses and concluding in a discharge into certain motor channels of practical and utilitarian purposes or ends. The children who bully to obtain property, service or obedience, to preserve themselves from punishment, do not laugh. Nor, as we know, do children laugh who mimicking, as it were, the movements of actual pursuit, attack, fighting, striking, really gravitate into the reality as often occurs in their plays. The impulses of excitation flow off into the channels employed by or associated with striking, throwing down, kicking, etc.

3. Laughter does occur in all that class of cases, exciting fears, anger, and in tormenting, etc., where the excitations of aggressive movements seemingly rise to the point of discharge, but which at this point do not discharge fully along the accustomed channels, as they do in the previous classification. In this case there seemingly is little or no discharge into those processes which give rise to the alien emotions, i. e., the child does not feel real anger, vengeance, etc.; instead, he laughs.

Laughter seems, as it were, under these conditions, a substitute motor activity for what had previously been a natural mode of discharge along practical purposes. The distinction is shown in the two forms of taking property. In that form where the property is taken for the sake of the value of the property in itself, the child does not laugh ; but when the child takes the property in the teasing form, with no evident regard for the property itself, nor perhaps any intention of keeping it, then he laughs. If we should take the first form of taking property as a parent stem from which the second has been degenerated or has been derived, it would seem that the old associational chain of activities had been broken in the middle, as it were, the natural motor channels, which lead to actual theft, had been inhibited, and the nervous energy of the excitation find its accustomed channels of discharge closed ; the discharge takes place through other channels—those of laughter.

Will this serve as an explanation for the phenomena of laughter in all cases of the present study ?

This explanation of the phenomena of laughter in the cases of teasing is in harmony with the general physiology of laughter as laid down by Spencer, provided it is accepted that these forms of teasing are fragments of old chains of activity. According to his general principle, under any conditions, when the subject is strongly aroused and excited in the expectation of being about to discharge nervous energy in a certain direction, and the discharge is in some way checked suddenly, then it is likely that there will be a general massive discharge affecting the diaphragm. As examples of this, are cited the drama where amusing incidents are interspersed with high tragic excitations in order to relieve the tension. Soldiers at the siege of Paris, for a few moments in terrible danger, were noticed to break out in loud laughter as the danger was averted.

If these teasing forms of exciting fears, anger, shame, of tormenting, calling names, disobeying, are nervous arcs whose accustomed mode of discharges have through various causes been inhibited or modified, the accompanying laughter would be fully explained by the principle enunciated. In the case of exciting fear, for example, the child mimics the preliminary movements which the savage and brute used in actual combat, but at the moment of really vicious motor discharges this arc in the child is broken or greatly modified, and laughter, as we would expect, occurs. Laughter, in the data of all the seemingly fragmentary remnants of former nervous arcs, especially in the more violent ones, is recorded. It has been shown that the commonest movements in these cases, pursuit, capture, etc., are just those of the excitation part of the arc in the real chase, combat and torture of practical utilitarian life. They lead up

to the critical moment of motor discharge, but at this point they are either inhibited entirely or greatly modified, so that speaking in diagrammatic terms, the energy is choked, as it were, and is discharged massively in a way that leads to laughter. As stated before we know when the play becomes rough, as we say, and the mimic movements become real, the old channels seem to resume their function and the child does not laugh.

## XIX. Pleasurable Teasing and Bullying.

Classes of data, which in a strict sense do not belong to this study, are those of which the children, as a rule, show pleasure in being teased and bullied. These are instances of teasing about "beaux," new clothing, meritorious achievements, etc., and instances of voluntary fagging for another for whom the victim has acquired a more or less peculiar passion.

I. *Teasing about Beaux.* There are 27 cases, of which 13 victims are boys and 14 girls; of the ages mentioned, in 3 cases the victims are five years old; from six to ten, 12; from eleven to fourteen, 5. In the matter of effects upon victim, 13 cases, it is recorded, that the teasing was enjoyed; one victim did not mind it, two laughed, four pretended to dislike it, and three said something to have the teasing continued; five were angry, three cried, one threw stones and one became morbid.

1. I teased Everett (8) about a girl he did not like, and he became angry, then I teased him about a little girl for whom I knew he had a liking; he laughed and kept saying: "Well she is a pretty nice girl."

2. F. (7) has a very handsome and gallant cousin (9). She will introduce him to servants and neighbors, and shows much pleasure when any one notices how much they are attached to each other.

3. I (female) was very fond of a little boy when I was 9 years old, and I loved to be teased about him, although I made out that I did not like it a bit. If any one were teasing me about him and I knew they were going to stop, I would say something to keep up a teasing.

4. When I (female) was 13 years old, I was so teased about the boys, that if any one asked me any simple question about a boy, I would deny knowing anything about him, because I feared the purpose was to tease me.

II. *Teasing about Possessions.* There are 32 cases in this class. The subjects of teasing being new or pretty articles of dress (16 cases), new flag, pretty hands, pretty curls, red hair, fondness for teacher, and boys' first pantaloons. The victims in 26 cases are girls, and in 5 cases boys, and in 7 cases the victim is five years or under, in 14 cases between six and eleven, and in two cases over eleven.

III. *Bullying which is voluntarily accepted by Victim.* 1. Though never exactly bullied, I (female) fagged for a girl 2 years older than I when I was 12 years old. She was neither pretty or brilliant, but very sweet-tempered. Being an only child made her rather overbearing,

and as willing to be waited upon as I was to wait upon her. She had other dearer friends, and though I was consumed with jealousy, I never dared to push among them. A word of praise or thanks, or an invitation to walk home from school with my idol would fill me with happiness and set me to dreaming of the time when I might be her nearest and dearest. I was partly cured by being worshipped in the same way by other girls.

2. I (female) once knew a little girl who was then about ten years old; I was twelve; she was very fond of me and perfectly happy when I would allow her to run errands for me, of which fact I fear I took advantage, though I told myself that I did it merely for her pleasure. She wrote me a letter, signing herself "ever your obedient servant," and was my devoted slave as long as she lived.

3. I (female) had an older sister to whom I looked up very much when I was a child and always wanted to be in her good graces. No matter what she wanted me to do I was willing to do it for her.

4. I have a boy cousin who is thrown with an older cousin, and he thinks that everything that boy does is just the thing for him to do. The older one often tells the younger to do things he would not do himself, and the younger one gets the blame.

5. Emma is perfectly willing to be bullied by her sister Ethel, for she has heard Ethel talked about so much that she looks up to her and lets her walk all over her.

This data contains 20 cases of this character, of which the voluntary victims in 12 cases are girls, and in 4 cases are boys.

### Opinions of those Reporting.

The questionnaire, in addition to calling for specific incidents requested the personal opinions of those reporting upon the causes, cures and synonyms of teasing and bullying, and the forms of expression, and their effects on tormentor and victim.

These impressions, offered as they are almost wholly by adolescents between the ages of sixteen and twenty, perhaps possess considerable value as evidence of the views which persons of these ages take, aside from the facts contributed.

I. *Causes.* The main explanation centers about the testing explanation; testing temper, cry point, and disposition are offered in 55 instances; 10 suggest the notion of inherited instinct, 12 ascribe it to the play impulse, 33 find as a basis some peculiarity of victim; the other causes are scattering, namely, imitation, desire to attract attention or to be noticed, want of something else to do, restlessness, lack of proper sports or interest, desire to see others suffer, desire to make others ridiculous, to amuse spectators, and love of mischief.

In regard to the causes of bullying there are fewer attempts to explain and they are less clear. Twelve center the cause in some form of instinct to assert authority, consciousness of superior strength or size, inborn tendency of the strong to oppress the weak, etc. Six find a source in ideas of showing off, conceit, etc. Other suggestions are selfishness, amusement, result of chronic teasing, desire to show brutality, lack of home

training, inheritance from weak and doting parents, of unreasonable and too severe parents.

II. *Cures.* Among the chief causes of cures of teasing offered are assumption of indifference, 17; punishment, scolding, etc., 8; teasing tormentor, 10; cultivation of Golden Rule and teaching of altruism, 6; reasoning with teaser, showing him harm and wrong he does and appealing to sense of honor, 18; keeping busy, distracting attention, providing proper channels for activity or real interest.

For the cure of bullying, 15 recommend flogging or severe punishment, 8 suggest bullying the bully, and 16 think much can be done by the use of reasoning, remonstrance, appeals to sense of honor. Other suggestions are: preventing bully from exercising propensity, ostracism, cultivating rebellion in the victim, setting good example, etc.

## Forms of Expressing the Tormentor's Joy and Victim's Pain.

Perhaps the most valuable of this general data is that suggested to the mind of those reporting as common forms of emotional expression in tormentor and in victim.

1. The tormentor's mode of expressing himself during teasing are as follows:

1. Laughter (46), smiling, smile of delight, smile of fun, teasing smile, cold and cruel smile, grinning, giggling, chuckling, snickering.
2. Condition of the eye: winking, twinkle, sparkle, dancing, brightening, joy gleaming, merriment—in all 22 instances.
3. General face movements: facial expression, movements of face, twitching of face muscles, screwing up mouth, wrinkling forehead, wrinkle about mouth, tongue between teeth, excited look, beaming countenance, bright expression, pleasing expression, looking grave, ridiculing expression, pleasure-speaking face, look of satisfaction, looking happy, looking pleased.
4. Bodily movements: clapping hands (14), jumping up and down (13), dancing (4), motion of body, carriage of body, lying down to laugh, shaking, doubling up, little gleeful movements, shrugging, not able to stand still, shaking head, stamping foot, gesturing, rubbing hands, slapping leg, pointing finger (5).
5. Utterances: tells others of the joke, talks a great deal, brags about achievement, yelling, jeering, taunting, shouting, hissing, says: "What fun; ain't it sport?"
6. Miscellaneous: keeps passive, keeps silent, acts forward, swears, repeats teasing.

II. *Victim's Pain.* 1. Bodily movements which seem involuntary: crying (39), screaming, flushing (8), blushing, paling, sweating, biting lips, biting nails, stamping foot, clenching hands, jumping up and down, wrinkling forehead, nervously twitching muscles, nervous laugh, shrugging, snapping eyes, scowling, frowning, pouting.
2. Air of indifference (19).
3. Striking (15), shows anger (30), kicking, slapping, throwing missiles, pinching, biting, chasing, making faces, tries to get even, acts of revenge, scolds, lectures, loses patience, loses temper.

4. Miscellaneous terms: shows fear, shrinks back, disdainful, sullen, patient, pleased, silly expression, confused manner, facial expression, tone of voice, looks sad, looks sober, looks troubled, silence, profanity, goes away from tormentor, makes believe not to hear, asks teaser to stop, trys to change the subject.

Any conclusion whatever, under the conditions of such a study, are necessarily in the realm of the hazardous and impossible. The facts sometimes suggest certain thoughts, and in the spirit of merely stating exceedingly debatable problems the following questions are presented:

I. Accepting for the moment the theories of Spencer and Ribot (pp. 343, 344) upon the transmission of rudimentary instincts, is it possible that the movements which comprise the chief elements of bullying, teasing, and the egoistic impulses in general of the classes cited—pursuing, throwing down, punching, striking, throwing missiles, etc., are from the standpoint of consciousness broken neurological fragments, which are parts of old chains of activity involved in the pursuit, combat, capture, torture and killing of men and enemies.

II. Are teasing and bullying to be classed more as crystallized instincts than as conscious and voluntary activities? As suggested by the causelessness of some and purposelessness of others, does it not seem that they are fragments of old reflex arcs, and that consequently inquiries seeking a well-defined motive in the realm of conscious life to explain teasing or bullying are of the same order as inquiries seeking in the mind of the infant to discover conscious motives for the peculiar prehensile movements of his great toe?

III. Is not this hypothesis of transmitted fragments of instincts in accord with the strangely anomalous fact that children are at one moment seemingly cruel and at the next affectionate and kind, vibrating, as it were, between two worlds, egoistic and altruistic, without conscious sense of incongruity?

IV. Under this theory of Spencer, Ribot and others, is it likely that the exercise of these movements of pursuing, capture, etc., preserved in children's bullying, teasing, and even natural plays, will tend to call back and exercise in strength the alien motives and emotions of hatred, vengeance, cruelty, etc.?

V. A crucial pedagogical problem is involved in the question whether these movements and associated emotional states have or have not a functional bearing upon any essential activities concerned in the institutions, industrial, social or moral, of modern civilization. Do they in some covert or concealed way, acting beneath the subliminal range of consciousness, aid in the development of useful activities or are they merely a dead and useless weight continually serving as a drag to civili-

zation? All of the founders of systems of pedagogy have passed over them lightly, recognizing apparently no possibility that apparatus or instincts, useful in a past condition of life, but useless in the present, might be carried over in a rudimentary state of degeneration as physiologists are inclined to assume the fetlock of a horse is carried over. Rousseau emphatically laid it down as an axiom that all first intentions of nature are right, and to protect the pleasing universality of his dogma declared all appearances of evil to be merely the effects of artificial education. Froebel agrees with him and sees in child-nature only instincts with good teleological bearings, with perhaps here and there a few vacuums filled with the mere absence of good, which by nourishing the teleological impulses disappear as did the darkness of Egypt preserved in a bottle. The Herbartian pedagogics, which assume to have a monopoly of the moral problem and the recapitulation theory, should be expected to give these alien instincts a positive place and treatment, but we are met here as well with the negative conception, and the silent assumption that by exercise of the child in the whole life and spirit of the culture epochs no danger is to be anticipated from exciting into life the dead and evil as well as the living and teleological good.

Now, assuming the possibility of a positive state of these movements and associated emotions and motives involved in children's teasing, bullying and natural plays, we are confronted by a series of alternatives with a very vital bearing upon the attitude of pedagogy.

(1) They may have a direct and a teleologically good, functional relation to the essential activities of modern civilization. In some hidden way their exercise may develop physical conditions and mental states, quite different from what they seem in childhood, which are essential. If this functional relation does exist, and could be brought to light and intelligently, educated, much might be expected in the light of such training as modern methods of science, history, folk-lore teaching and manual training, are now beginning to deal with the instincts of nature love, hero love and constructiveness. We have here a suggestion of a world of education by play of which as yet only the shore line soundings have been made.

(2) If these movements and associated instincts have no functional relation whatever to institutions and modern civilization, but on the contrary, are germs of poison, then their exercise may merely be a hot-bed treatment of that which later constitutes our criminal instincts. Indeed recent investigations by the school of criminologists, led by Lombroso, more than hint as much. A scientist of the experience and far reaching investigation as Lombroso pursues these criminal impulses

until he comes to the gate which leads from childhood and here he pauses to make the unqualified indictment that it is impossible to frame any explanation to account for the wide spread criminality except upon the assumption that the "*criminal instincts are general in children.*"[1] In a parallel between the instincts of children and of criminals he certainly has already, from the data of child study itself, drawn up at least the form of a very formidable accusation.

In view of these sweeping conclusions, which cause the investigators of criminals to point their fingers so significantly and ominously to Froebel's children, in view of the patent facts of the numbers already supported in our jails and the infinitely larger number of us who, probably, under the same education and excitation, would also be there—this school would suggest it is now the high noon of urgency that the cold eye of science were critically investigating these as yet uninvestigated impulses of childhood, which now under our sympathizing Froebellian eyes are exercising themselves—viperishly warming up it may be—in seemingly innocent plays, teasing, bullying and even athletic practice.

(3) An hypothesis to which many of the keenest psychologists of the evolutionary school and educators of practical experience lean is directly contrary to the last. Admitting that these impulses are rudimentary instincts, they take the view that exercise of these impulses in children's plays and games does not strengthen them, but, on the contrary, drains off the energy in a natural and harmless way, in a sort of vaccination sense. If these impulses were not allowed free expression in natural plays and forms of amusement, such as teasing, then in their restraint this energy would remain as a poison to the whole system and later give rise to criminal outbreaks. This view regards the plays of childhood as the safety valves to prevent repression and internal development in forms later to break forth in deeds of criminal passion. If this is the true alternative, then this field is none the less deserving of thorough attention, in order to secure for childhood the certainty of such safety exercises and the best possible forms—the care and preservation of children's plays would necessarily become one of the vital problems of pedagogic practice.

(5) A fifth alternative, closely allied to the last, would place still higher emphasis of attention to physical exercises, involving these movements referred to. If these movements are the fragmentary rudiments of past combat, capture, and killing of prey and enemies, then they are clearly the most ancient forms of physical exercise, by and for which the organism developed,

[1] L'Homme Criminel.

and has become what it was and is. These are then the racial forms of all exercise, and for this very reason the theory is a forcible one that these movements are not only the best possible, but the only possible forms of exercise upon which progress in physical development, and mental development, of the individual rests. Such would be the suggestion from children's natural play.

# SECOND BREATH.

By G. E. PARTRIDGE, Student in Psychology, Clark University.

Runners often speak of a recovery of breath gained while running, which they call second breath or second wind. When one runs or performs other violent muscular exercise, the breathing at first increases in rapidity and depth, the heart beats faster, and more violently, soon there is a feeling of fatigue, more and more difficulty is felt in breathing, every muscle of the body which can be used, either in expanding the chest, or in furnishing support to the muscles which perform this function, is brought into service. If, however, an effort is made under excitement, or strong motive for continuing, to press on, disregarding the consequences, gradually the dyspnœa becomes less severe, the fatigue disappears, the elasticity of the step returns, and for a long time speed equal to, or greater than at first, can be maintained. There is often a feeling of buoyancy, an intoxication in the effort, which makes one feel that he could go on forever. Such is physical second breath, when the muscular activity involved is great.

This loss of power and recovery by continued effort is not confined, however, to running or to violent exercise, but occurs in a great variety of work, both physical and mental. In March, 1895, Dr. G. Stanley Hall issued a syllabus on "some common automatisms." To the section on second breath two hundred usable returns were received, which were turned over to me by Dr. Hall. Frequent conferences have been held with him in the preparation of the paper.

The section of the syllabus relating to second breath was as follows:

VI. *Second Breath.* Question boys about running, swimming, etc., till the "wind" is almost gone, and returns. Also in head work, as when working beyond the usual hour for retiring. Also overplay and abandon in conduct and in speech; when the brain or muscles act with unusual vigor and for an unusual time, as if they were overfilled with blood, or the fatigue sense was fatigued. How does the momentum persist after you wish it stopped? After effects; treatment?

One hundred and sixty-eight of these cases were clearly described instances of second breath, as called for by the first two

questions. The remainder were cases of overplay or abandon in children. Sixty-five cases were of day work, 103 evening or night work; 102 of mental, and 66 of physical second breath. Of the 102 cases of mental second breath, 89 were of females and 13 males; of the physical, 30 females and 36 males. The forms of activity during which this phenomenon was experienced were as follows. Physical: running, 33; riding bicycle, 4; playing tennis, 3; playing ball, 3; playing, 2; work, 2; sewing, 2; riding horseback, 1; weaving, 1; playing tag, 1; housework, 1; swimming, 1; rowing, 1; jumping rope, 1; walking, 1; coasting, 1; skating, 1; dancing, 1. Mental: studying, 84; writing, 6; at parties, 4; playing piano, 4; examination, 1. A classification according to age shows that 2 were eight years old, 1 nine, 4 ten, 1 eleven, 1 twelve, 5 thirteen, 7 fourteen, 5 fifteen, 14 sixteen, 26 seventeen, 28 eighteen, 22 nineteen, 15 twenty, 4 twenty-one, 5 twenty-two, 2 twenty-three, 2 twenty-four, 3 twenty-five. No conclusions are to be drawn from these figures, except that the phenomenon is common during the ages mentioned, since the cases were all experiences or observations of the members of a single school, the large majority of whom were from 16 to 22 years old.

### Physical Second Breath.

The following are typical cases of physical second breath:

Case 1. M. 11. Would run until he got his second wind. We were talking about running. I said that I could n't run. Willie said: "You don't run long enough. You ought to run until you get your second wind." "What do you mean by that?" I asked. "Why," he said, "you run until you are ready to drop, that 's when you stop. Now if you would keep right on the way I do, after a while you could run any distance. You would n't be short of breath at all. It 's the same way in swimming, and when we boys run races." I told him I did n't think it was a very good way, it was dangerous; but he did n't seem to believe me.

Case 2. F. now 19. When playing tag, I have often become so tired, it seemed as if I could n't run another step, but if I pulled myself together, as it were, and made one more effort, I seemed to have lost all fatigue, and could go right on. The same has occurred during a long walk.

Case 3. F. I remember that when a child, I used to stay out sliding, until I was so tired, I felt as if I could n't pull the sled another step, but I could not bear to think of going home. After awhile the tired feeling all passed away, and I felt as rested as when I first started out with my sled.

Case 4. F. 16. I have been to receptions when I have danced nearly every set until about 11 o'clock. When I stopped, I would feel as though I could n't dance another set, but when asked to dance the next, I accepted, and danced until my tired feeling left me; when it was time to go home I felt as if I had just commenced, and was as fresh, if not fresher, than I was when I came.

Case 5. F. One Friday afternoon, several weeks ago, I played tennis until I got very tired, but our side being ahead, and wishing to win,

we kept on playing, and I did n't feel tired, until I had been in my room awhile. Then I felt so nervous and weak that I could hardly study during the evening.

Case 6. F. 17. I can walk but a little way without getting very tired. But one day I undertook a long walk of about 10 miles. The longest walk I had ever taken before at one time was 2 or 3 miles. My sister and some friends were with me. I gave out before long, but after a while I could go ahead of any of them. When we reached home I was the least tired of the party, but the minute I got into the house and sat down I felt ill. For several days I could n't walk at all or take any exercise in any way.

Case 7. F. 21. I once went out rowing with a young gentleman and his sister. When about two miles from our home, the young man was suddenly taken ill, and I had to do the rowing. I soon became very tired, and sometimes thought I could go no further. Then I would feel quite rested again. This alternation of fatigue and rest alternated until I reached home.

This periodicity as described in the above case is not frequently mentioned. The recovery once gained, fatigue is not usually felt again until action ceases. In one other case, during evening mental work, a second period of exhaustion is mentioned.

Case 8. F. 22. I have many times been so tired attending to the home duties, that I hardly knew how to continue, but urged by the thought that it was necessary that the work should be done, I have gone on, and found that after a while the tired feeling left me, and I could work comfortably. When I stopped to rest, however, I always found that I was much more tired than I had thought, and could hardly keep quiet. In the morning I felt very tired again, and only the feeling that it was necessary that I should work made it possible for me to do it.

This morning tire[1] is a characteristic symptom of neurasthenia, and the condition in the morning represents more nearly the patient's true state than the restless activity, and the feeling of *bien être*, which follow later in the day.

"In the morning," says Dr. Cowles, "the fatigue sense is rested and reports the condition of the body more truly than later in the day, when the capability of feeling fatigue is exhausted."

Case 9. F. 15. My cousin was sick, and she had no one to attend her but me. I sat with her day and night for about two weeks.

The result of this sustained effort was that for a long time I could n't get interested in reading, and my health was much impaired.

Case 10. F. 17. When anything very exciting is to happen I do not feel tired until it is all over, then I am exhausted.

### Mental Second Breath.

The general nature of the returns relating to this section can best be shown by a few cases.

Case 11. F. 18. I worked until 11 o'clock at my lessons, and I felt

[1] See Dr. E. Cowles Neurasthenia.

so tired and sleepy that I felt sure that I could n't do any more. But knowing that the work must be done, I kept on and very soon I found that I did n't feel tired or sleepy at all. I worked on until 12.30 and then I went to bed. I could n't get to sleep, heard the clock strike one, two and three; when I did get to sleep I had vivid dreams. At four o'clock I awoke and found myself crying.

Case 12. F. 18. One evening I was writing very steadily and at last I began to grow very sleepy. Instead of stopping, I wrote on, hardly seeing what I was writing. Once I closed my eyes, and a few minutes after I found that I had been asleep. I began writing again, and soon I found that I was n't so sleepy. I continued until about 12 o'clock. When I went to bed it was a long time before I could get to sleep, for the written pages seemed to be continually before my eyes.

Case 13. F. 18. One night I had a great deal of copying to do. I worked for about two hours, when I felt so sleepy and tired that I could scarcely work. But I was very anxious to finish my work, and kept at it until I finally ceased to feel tired, and worked with little difficulty.

Case 14. F. 14. When taking lessons on the piano, I was obliged to practice a great deal at once. I could n't practice a little at different times during the day, but all my practice was to be done at once. After playing about an hour I would be very tired, but by resolving to go on, and fixing my attention more closely on what I was playing, I would gradually become very much rested, and could play for two or three hours without feeling much fatigue.

Case 15. F. 17. One afternoon I studied until I was very tired and stopping only for supper, continued on the same lesson until I could hardly think, when suddenly my mind became fresh, my interest quicker, and I found myself once more able to study. When I went to bed I was unable to sleep, although very tired.

Case 16. M. 19. Being employed during the day-time, I had to be up very late at night in order to get my lessons. On several occasions I worked all night. About 10 o'clock, usually, I would feel a drowsiness come over me and I would begin to be sleepy. I took exercise of all kinds, walked, and did everything I could to drive the sleepiness away. Sometimes I would keep on writing, until all of a sudden the sleepiness had left me—I gained new vigor, I felt fresh and could work on as well as ever for hours afterward. After a year's experience, I found that anything eaten or drunk before the fatigue period would cause the drowsiness to come on quicker, and would make it harder to overcome. During this year my average time of sleep used to be four to five hours, but it was the sleep of the just when I did sleep. My health was injured, however.

### Overplay and Abandon in Children.

Case 17. F. 8. M. runs and plays and does n't seem to know when she is tired, until her mother calls her to come in and get ready for bed. Then she is really so tired she can hardly get undressed. I have often wondered how she could run and play so much, for she is not a strong child.

Case 18. When M. is playing, the more tired he gets the harder he plays and screams. He will sometimes get so excited he cannot help screaming, and when he stops playing he can hardly stand up.

Case 19. F. 10 and 11. These two children play a great deal, and are so tired if they stay up after nine o'clock, that they would be willing to go to bed dressed just as they are. I have seen M. cry because she had to stay awake to be undressed.

Case 20. M. One night M. was not put to bed at his usual time, but was allowed to stay up all the evening. Immediately after supper

he was full of life and anxious to play, but toward his usual hour of retiring, he began to lose his interest and did n't play so hard. This lasted for about half an hour. Then he began to play again, and played harder than before. But the next morning he did n't want to get up, and when he did get up, he was cross and ill-natured all day. He was not so active the next day. He was pale and had circles under his eyes.

Case 21. B. plays until you would think he could play no longer. He gets so excited that he does anything he thinks of, and when he talks it seems as if he could n't get the words out fast enough. The excitement continues for a long time afterward.

Of the 168 cases, 8 only—4 in studying, 2 running, 1 playing, 1 jumping rope, spoke of the return of power as a sudden recovery, in all other cases in which it was mentioned at all, it was a gradual recovery, the fatigue slowly passed away, and the interest gradually returned.

Eighteen stated that after the fatigue was overcome they worked as well as before; seventeen worked better, there was an improvement in the quality of the mental work, or they played better, or ran faster, or more steadily than at first. Further extracts from cases will illustrate this increase in dynamism.

Case 22. F. 17. Studying for an examination. "So I kept on; for a while it was hard work to keep awake, but soon I began to feel brighter, and it seemed as though I could study better than before. I worked until 12 o'clock."

Case 23. F. 18. Studying for an examination. "But I kept on, and after a while all sense of fatigue passed away. I had never worked better in my life."

Case 23. F. 20. Racing on the gymnasium track. "I could run just as long as from the first."

Case 24. M. 15. Running. "After a while I got my second wind and ran a great deal further than I had before I got it."

Case 25. F. 15. Skating. "Was very tired, but thought I would go around the pond once more. When I came back I never felt so much like skating in my life. My ankles did n't get tired, I felt light on my skates, and kept on until a late hour."

Case 26. F. 18. Studying. "My tired feeling had gone, and I felt as though I could work all night."

Case 27. F. 15. When I was 15 I loved to ride horseback. One day we had ridden several miles, when suddenly there came over me a dreadful feeling of being so tired that I could n't go on a minute longer. All my limbs ached. It seemed as if I could feel the blood flowing through my veins. Passing objects looked wavy, and I felt as if I could lie down anywhere in the dust. But I kept on and bye-and-bye when the riding master ordered a gallop there came a sort of pleasure in it, and I felt as though my horse and I were one, and that I could ride forever.

If I work beyond the usual hour for retiring a sleepy feeling comes over me, my head feels heavy, and it grows harder to keep the attention fixed, things are learned more slowly, the words look red and seem to dance on the page. When this is over the eyes become fixed and bright, the lessons seem more interesting, and there arises a fierce desire to do the work well if it takes all night. It is a feverish pleasure and one does n't wish to stop. In painting, music, and writing, much better work can be done after the "second breath" comes.

A comparative study of length of periods preceding, and during fatigue, would be important but unfortunately the data is insufficient. In a few cases the time of the onset of the fatigue during evening work is given as follows: Three were fatigued at 8 o'clock, 4 at 8.30, 7 at 9 o'clock, 4 at 9.30, 16 at 10, 5 at 11; 9 said they were tired or sleepy at their usual bedtime.

## The Reaction.

In 47 of the 102 cases of mental work reported, sleeplessness occurs as a reaction, and in three cases a feeling of exhaustion is mentioned. Of the 66 cases of physical activity, 13 speak of exhaustion and one of sleeplessness, the proportion of the whole number of cases being much smaller as it will be observed for the physical work than for the mental. Of the 25 who mentioned sleepiness as occurring during the fatigue period, 14 complained of sleeplessness as a reaction, 10 said nothing about it and 1 slept soundly. The remaining 22 who speak of sleeplessness as a reaction do not say that they were sleepy before getting the second breath. On the day following the mental work, 26 were tired, sick, had headache, were hysterical, etc.; after the physical work, 6 were exhausted, tired, or sick. Some points in regard to the immediate reaction, and in the after effects, not given above, deserve notice.

Case 28. F. 19. After mental overwork. I cannot get to sleep, am restless and toss about. Images of the work I have done pass before my eyes. If I have been painting, every blade of grass, every light and shade of the landscape appears.

Case 29. F. 18. After mental work, I could n't get to sleep for a long time. It seemed as if I must get up and go to work again.

Case 30. F. 14. After working on geometry problems, I could n't get to sleep for a long time, but lay awake thinking about my lessons. When I did fall asleep, I dreamed about lines and circles chasing each other.

Case 31. After writing an essay I felt tired, my imagination was lively. I fancied every chair and bed-post was animated. After I got into bed I could n't sleep. My head ached, my eyes felt tired and heavy and ached, my face and hands were hot, and I saw all sorts of dreadful creatures in the dark. I awoke next morning unrefreshed and covered with perspiration.

Case 32. F. 17. After mental work. My head felt tired and queer, and I had an all-gone feeling everywhere. To prevent lying awake after retiring, I took a cold sponge bath, and went to sleep almost instantly.

Case 33. After mental second breath. "I do not feel quite so bright as usual to-day, but to-morrow I shall feel worse, for the second day is always worse than the first."

The above case illustrates well the persistence of the momentum, often continuing, as in this case, until the second day. The effect upon the imagination, the hallucinations, and the vivid dreams are mentioned in many cases.

In sixty-two cases there was reported an effort to continue

work, there was a hard struggle against the pain and fatigue, there being present very often, some unusual motive for exertion. "I determined to finish," says one; another, "forced myself to stay awake;" "stuck it out for half an hour," "persevered," "determined to stay up and do so much," "aroused myself by force of will," "controlled the drowsiness," "would n't give up, nerve myself to work on," "manage to keep up for some time longer," "forced tired nature on," etc., etc. In two cases only, rest was taken, and then the work continued.

### The Physiology of Second Breath.

Dr. Lombard, in his work on fatigue, in which he experimented upon the flexor muscle of the middle finger found that, if the muscle was contracted at regular intervals until apparently exhausted, and then the effort was continued at the same intervals, regardless of the pain, at last the contractions returned, and a more or less complete recovery was gained. This, if the contractions were continued long enough, was followed by a second period of exhaustion, and a second recovery. In his own case Dr. Lombard found that the recovery was made five times during twelve minutes. In other subjects, although the curve of recovery was not so clearly defined, there was always a loss and return of power. These curves were all obtained from young and healthy subjects. This is evidently a similar phenomenon to that found in all cases of second breath, a return of power by continued effort.

The physiological action involved in this recovery was believed by Dr. Lombard to be a complex of changes in the central nervous system; for when the finger could no longer be moved voluntarily, its response to electrical stimulus was but little diminished. A muscle which was imperfectly recovered from previous fatigue required less time to pass through the exhaustion and recovery than a fresh muscle.

Dr. Cowles, in his work quoted above, describes the second breath state under the name of pathological fatigue, a state in which the fatigue sense is exhausted, and no longer reports the true condition of the body. This explanation of the state appears too general, for the second breath state includes many cases in which, obviously, there is not an exhaustion of the fatigue sense. The changes involved in the disappearance of the feeling of fatigue are no doubt complex, and this may be one of the conditions in some cases. In some cases of neurasthenia with the general lowering of sensibility there is no doubt also a lessening of the ability to feel fatigue. That the stimulus remaining the same the resulting sensation diminishes is probable enough, but that in the half hour or less of exhaustion before the second breath comes on the power of feeling fatigued is com-

pletely exhausted, is by no means evident. Without stimulating occupation one can feel extreme fatigue for an indefinite period. The process of overcoming fatigue in these cases of second breath is rather described as rising above it, just as one can become unconscious of severe pain by making a strong effort of attention in another direction.

In his monograph on cerebral hyperæmia, in the list of causes of which emotional disturbances lead, Dr. Hammond has described the same condition, as far as subjective symptoms are concerned, as we have in second breath. There is a feeling of fullness in the head, the face is flushed, breathing quickened, heart beat increased, thoughts flow with unusual rapidity. A slight increase in the cerebral circulation produced by excitement, by stimulant, or even by an inverted position of the head is capable of producing the same results. Among musicians it is commonly known that one cannot sing as well early in the morning. An evening performance is usually better than a matinee. Getting the blood to flow freely, getting warmed up, are expressions common among athletes. In the cerebral hyperæmia as described by Dr. Hammond, the blood vessels are permanently distended. Like rubber bands which have remained long stretched they have lost their elasticity, and do not contract normally. Corning, and others, however, attribute most of these disturbances, described by Dr. Hammond as results of cerebral hyperæmia, to asthenia or excitability of the nerve tissue itself. Says Dr. Dana, "the cellular disturbances are primary and the vascular secondary in neurasthenia."

Though this is a problem upon which the last word has not been said, it seems probable, as Dr. Cowles says, that the overworked nerve cell may become irritable and overexcited as the result of its self-produced toxic products, and also that the distension of the cerebral arteries and increased blood supply, at first the result of the nervous activity, may, in turn, continue to excite the nerve cells.

The part played by emotion in the continuation of effort which initiates the second breath state is very important. The close connection between changes of circulation in the brain and emotion, first demonstrated by Mosso is too well established to need to be referred to, but its bearing upon the erethic conditions in general is not to be overlooked.

The sixty-two cases in which there was a struggle against fatigue show a strong affective tone. There was distress at the pressure of work, fear of inability to complete it, or that there should be failure in examination. Also the effect of pain itself in leading to a more dynamic condition is to be noted. "Pain seems to spur the nervous system on," says Mosso. That pain is capable of raising the organism to the highest state of intoxi-

cation and madness, the uses to which it has been put in religious cults abundantly shows. The flagellations and penances of the middle ages, and the martyrdoms of the saints are examples of this. The glorifying of God by the torture and abasement of the flesh, finds a partial explanation in the fact that physical pain stimulates the nervous activity.

The subjective stages in this process of fatigue and recovery, better observed in the physical cases, are (1) a feeling of exhaustion, and pain, with diminished muscular contraction. (2) Increase in emotional tone, fear, anxiety, rivalry, prompting to a vigorous effort to continue. (3) A feeling of increasing power, sometimes a feeling of pleasure in the pain, or in overcoming it. (4) Pain ceases, absorption in the work, a feeling of having reached a new level of power, and increased momentum.

Apropos of the third stage, Ribot's recent article in the Monist must be spoken of. He here attempts a classification of pathological pleasures and pains, in which are included such emotional states as luxury of grief, pleasure in strong stimulus, and in bodily pains, etc. It is still open to question, however, whether some of these conditions are not only not pathological, but have been, and still are, vastly important factors in the race progress.

In 49% of the cases of mental second breath, sleeplessness or exhaustion was given as an immediate reaction, continuing in 25% until the next day, or later. Of the physical cases only 21% felt exhaustion, as a reaction, and in only 9% was the effect mentioned as persisting. As far as these cases go, it is indicated that either physical erethism of this kind is less disturbing than mental, or that evening work in general is more exhausting than day work, as the day cases are, with a few exceptions, physical work and the evening cases mental. The figures given above indicate also that fatigue comes very often at the usual bed-time—at that hour there is perhaps an auto-suggestion (to use Moll's term) of sleep. The eyes close, the attention wavers, and if the tendency is not strongly resisted, sleep supervenes. But that the limit of normal fatigue is reached is not so certain. The power of habit and of an established rhythm asserts itself here. How much of the sleeplessness in these cases is caused simply by the breaking up of the rhythm of waking and sleep, of course it is impossible to say, but it must be taken into account in considering the effects. At any rate, sleeplessness itself is sufficient to explain all persisting evil effects in this group of cases—mere staying awake, however caused, may cause much exhaustion.

The bearing of this question of mental second breath, and evening work in general, upon the student diathesis and the neuroses of student life, is worthy of extended investigation. It

is entirely within the limit of possibility that the methods of work, and the division of hours of labor, as commonly practiced, particularly in our colleges, is radically wrong.

The question, so important to pedagogy, to the hygiene of development, even to religion, as to the value of these erethic states, which have obviously a far wider range than the single group spoken of in this brief paper, cannot be definitely answered, of course, by any evidence which is given here. A final conclusion would need to be based upon vastly more solid foundation than that. Still, even if we were willing to believe that all inspirationists, religionists, ecstatics, and enthusiasts, have been mere freaks, and sports, or, as Lombroso expresses it, epileptics, we must admit that these exalted states, whatever they may have done for the individual, have contributed something, and are still doing something for race progress, and it is difficult to believe that anything which makes toward a higher, more intense consciousness, is in its nature pathological.

The relation between this second breath and the absorption states generally is more than one of similarity. All these conditions as well as the hypnoses, trances, ecstacy, etc., have much in common. The ideal attention, the completely monoideistic consciousness, is perhaps such a trance like state, in which all automatic motion ceases, and one is "all eye, all ear."

Further study of these interesting phenomena, in order to determine the wide individual differences between slow and sudden onset, the rate of oscillation between fatigue and recovery, the variation, as well as the height and length of the recovery curve, the effects of pain, fatigue, shock, etc., may shed new light upon vaso-motor action, Traube-Hering curves, and other obscure fields of erethism. This new method of approach seems to us full of promise for psychiatry and education, as well as physiology.

# IMITATION: A STUDY BASED ON E. H. RUSSELL'S CHILD OBSERVATIONS.

By CAROLINE FREAR, Stanford University.

The observations of children, recorded in E. H. Russell's book on Imitation, are of unquestionable value in bringing student observers into a sympathetic appreciation of childhood.

The charts given below are a result of the working over of Mr. Russell's book which affords the most available material yet published on the subject of imitation, and are an attempt to discover trends and age-tendencies in the imitative activities of children. They certainly reveal some decided and law-abiding tendencies.

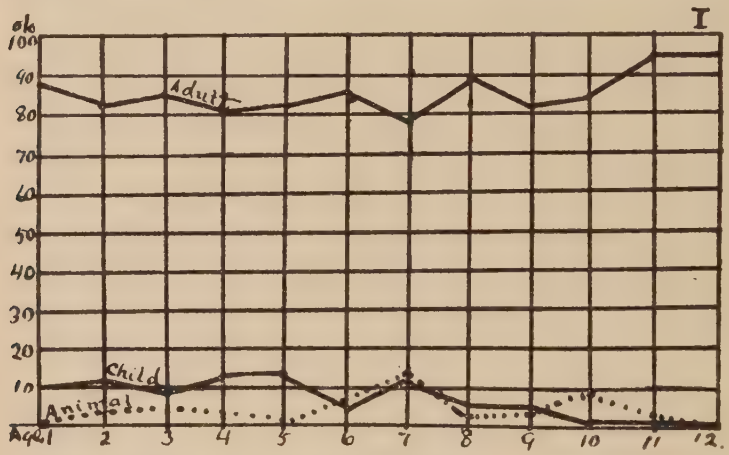



Chart I shows whom the child imitates. There is a small percentage of imitation of things, as an engine, but this is too slight to merit representation. According to the chart the proportion of imitation of adults is far in excess of imitation of other children or of animals. It is doubtful whether this chart shows the actual condition of things. Does a child imitate those who are far in advance of him, or does he imitate those who are more nearly on his own plane? We notice in the chart that the imitation of adults increases with years. It is probable that this trend is a true one.

If the tendency to imitate adults, whatever the proportion may be, means something, then it is pedagogically important.

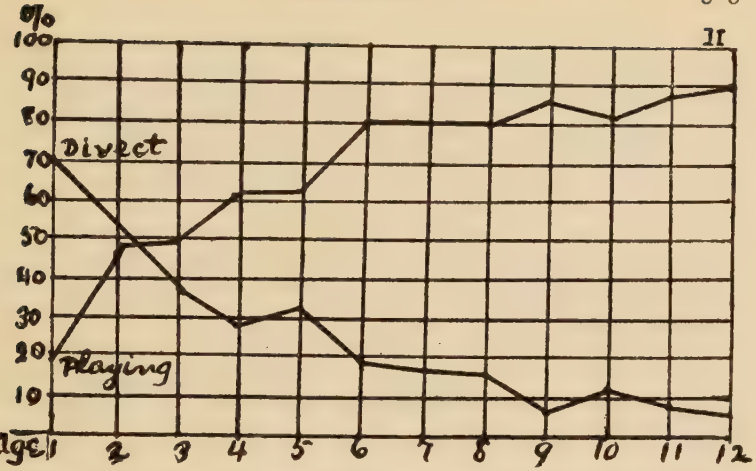



Chart II. Broadly speaking there seems to be three kinds of imitative activity represented in this book: Direct imitation, playing, and imitation with a conscious purpose. By direct imitation is meant the more immediate, more instinctive, less voluntary, sometimes unconscious and reflex, at all events impulsive imitation. This is illustrated by example 776, in which a class of little children bobbed their heads in imitation of the teacher who was keeping time with her head in teaching them a song. By playing, I mean the more dramatic form of imitation, — playing horse, etc. The direct imitation and playing are represented in the chart. As we should expect, the former decreases and the latter increases.

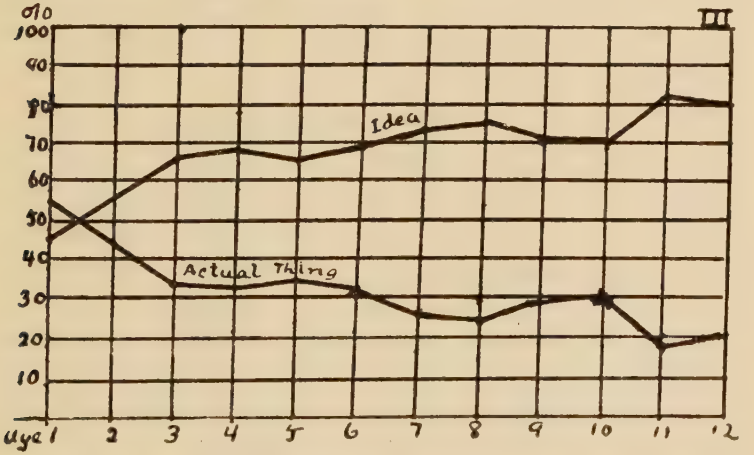



Chart III seems to show about the same thing as Chart II

but is collated on a different basis. Chart II shows an external objective classification, while Chart III, revealing the same laws, gives rather the internal meaning of these laws. It represents the exact imitation of the actual thing and the imitation of the *idea* with some variation of external features in the working out of that idea. As an illustration of imitation of the idea I quote example 50.

"Frank, age 1 yr. 9 mos. Frank had seen the boys play shinny in our yard and was delighted when my brother let him take the stick with which they played. Two days later I saw Frank playing shinny in the kitchen with a toasting fork and a pair of stockings rolled up in a ball."

This chart shows the growth of the understanding and imagination, and indicates growth of creative power and individuality.

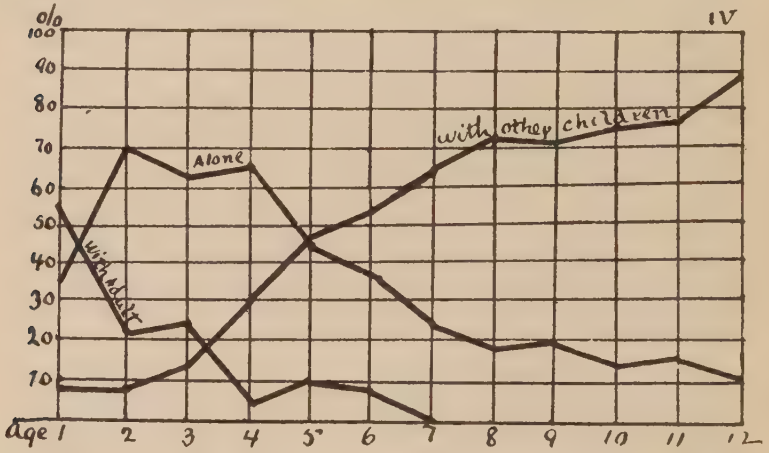
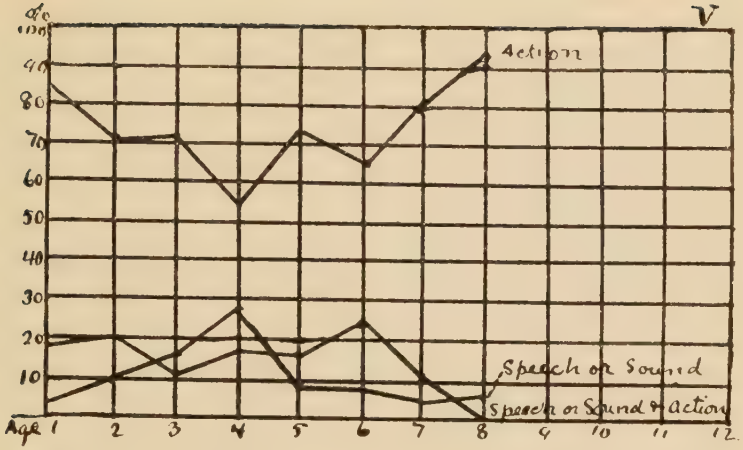



Chart IV shows with whom the child plays. The per cents are made, not on the whole number of cases of each age, as in the preceding charts, but on the cases of "playing" only. The tendency for a child to play with an adult is marked during the first year, after which for two or three years he is satisfied to play by himself. Then this tendency decreases, and with the development of the social instinct the tendency to play with other children increases rapidly and steadily. As this line advances there are more instances of groups of children playing together, which may indicate that while at first the child needs strong, authoritative control, yet beginning perhaps at four, he needs more and more democratic association with his fellows, with its increased possibilities of self direction.




Charts V and VI show what children imitate: as action, speech, or sound. The per cents of Chart V are made out on the cases of playing and those of Chart VI on the cases of direct imitation. Chart V shows the increasing combination of dramatic speech with dramatic action and the decreasing occurrence of playing by simple action alone.

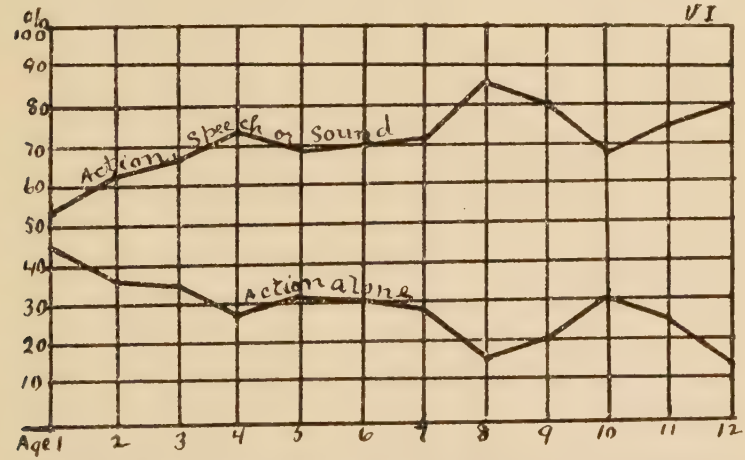



Chart VI shows the preponderance in early years of imitation of action over that of speech. This suggests that possibly in the early years too much is made of teaching language and that more attention should be given to hand and body activity. Bodily activity is such a large part of a child's spontaneous life, why should we not utilize it in the school room? It establishes one

more association with a given subject and so intensifies and broadens the mental concept. Chart V shows, moreover, that speech develops in connection with action.

The pedagogical suggestions drawn from the charts may be summed up as follows:

a. The natural tendencies of children indicate that adaptations of adult occupations furnish healthy material for part of the activity of the kindergarten.

b. From the age of four or five years considerable play should be given to the free development of children in connection with their social instincts.

c. In early years of school life *action* should be given a prominent place. The formal teaching of language should be subordinate. Verbal expression should be developed spontaneously in connection with action.

# BLUSHING. [1]

By G. E. PARTRIDGE, Student of Psychology, Clark University.

The following study of blushing is based mainly upon answers to a syllabus issued by Dr. G. Stanley Hall in 1895 entitled: Some Common Automatisms and Nerve Signs.

The section relating to blushing was as follows:

How do you know you are going to blush? Where is it first felt? Do you feel it in hands, arms, limbs, neck, chest? Are there attendant tweaks, tingles, twinges or other sensations elsewhere, or any reactions of pallor or chill? Describe spontaneous flushes in any part of the body, as when alone. Teasing to make others blush. Describe your own blushing habits and those of your friends.

The papers upon which the tables given below are based, all came from the State Normal School at Trenton, N. J.

For purposes of tabulating, blushing has been distinguished from flushing, blushing being used for the phenomenon as observed in others, flushing for the train of subjective symptoms.

*Blushing*. We have in these papers 120 cases of blushing: 36 males, and 84 females.

The age is given in 60 cases: 2, six years; 2, nine; 4, ten; 5, eleven; 8, twelve; 2, thirteen; 2, fourteen; 11, fifteen; 8, sixteen; 7, seventeen; 8, eighteen; 3, nineteen.

The place of origin of the blush, the manner of spreading, the depth and duration vary widely in different cases.

This point can best be illustrated by a few extracts from the papers.

"Cheeks, forehead, ears, and neck red;" "face all suffused;" "large red spots on the face and neck;" "little red spots, which grow and run together;" "face all red, color deeper on the cheeks;" "face very red, with two or three white spots;" "face, then neck, then back of ears;" "begins near the ears and spreads;" "forehead, then cheeks, ears, and neck;" "tips of the ears first, then all over face;" "face red, spots near the ears;" "very red, then white spots come;" "face almost purple;" "appears in each cheek, spreads, meeting in the middle of the forehead;" "spots of red and white;" "red spots in each cheek;" "blushes on one side of the face;" "red

[1] The literature of the subject of blushing is meagre. There are a few scattered articles in the physiologies and the physiological journals. There is a volume upon its pathology and treatment by Dr. Harry Campbell, a monograph by the same author, entitled "Morbid Blushing," contained in Wood's Monographs, 1890, an article by Camille Melinand, a translation of which appeared in the Chautauquan in 1893. The chapter on blushing in Darwin's Expression of the Emotions, about completes the list of important articles upon the subject. There is an old volume "The Physiology and Mechanism of Blushing," by Burgess, London, 1839, another by W. S. Muller, which appeared in 1739.

spots on neck or face, other parts pale;" "Cheeks, forehead, and back to the ears red;" "large red spots on each side of the neck and face;" "face, neck, and down to the arms and hands;" "reddest just in front of the ears;" "neck all red, then red blotches on face;" "spreads from the neck to the face;" "face pink, then red;" "color comes and goes."

There seems to be no uniformity in the course of a blush; in some cases it appears in a small spot, and spreads in all directions, in some it spreads upwards only, in some downward, appearing on the neck last.

In the list from which extracts were given above, the cheeks are mentioned 12 times; face, 14; neck, 11; ears, 7; forehead, 3; arms and hands, 1.

In 12 cases the face or neck was said to be spotted, in 5 there was an alternation of redness and pallor.

It is to be observed that the center of the cheek, the neck, and spots just in front of or below the ears, are most frequently concerned in the commencement of a blush. . . . Aristotle asked why the ears were concerned in shame, and the eyes in anger. Mosso has described the delicate changes in the arterioles and capillaries of the rabbit's ear, under the slightest shock or fear. Physiologists once believed there was an automatic vascular arrangement, or "false heart" in the ear.

The causes of blushing were teasing (usually about the other sex), 32; told to blush, not to, or told that they are blushing, 18; reciting, 13; spoken to, 8; looked at, 6; a certain name mentioned, 5; talking, 4; mistake, 4; something told which he had said, 1; accused, 1; laughing, 1; anything said about blushing, 1; amused, 1; lying, 1; thinking, 1; good news, 1; meeting an acquaintance, 1; introduced, 1; excited, 1; embarrassed, 1. The point deserving attention is the frequency of the cases in which the mere mention of a blush is sufficient to produce it. The fear of being seen blushing increases it, hence one doesn't blush so readily in the dark. It does not follow, however, that one never blushes at all in the dark, as has often been maintained.

A few more points not brought out in the tables as worth noting:

Boy, 10. Tears always come to his eyes when he blushes; boy, 10, always winks when he blushes; girl, 16, hands tremble; boy, 10, always cries afterward; boy, 10, eyes twitch before the redness appears; boy, 15, mouth always twitches when he blushes.

*Flushing.* Of flushing as felt, we have 134 cases, all but four or five of which are of females, ranging in age from 17 to 22 years.

The warnings and preliminary symptoms of a flush vary widely in different cases. The most important of these are given below:

Tremors or "feeling" near the waist, weak in the limbs, tremor which passes from the feet to the head; a feeling, swelling, pressure, trembling, close feeling, warmth, a weight, beating, in the chest; chest heaves; sensation of warmth, or warm wave, running from the feet upward; heart stops, then beats more rapidly; quivering of the heart; blood rushes upward; hot glow all over; nervous flash or feeling; cold all over, then very warm; feel uncomfortable; dizzy; "quickening" of blood all over the body; tingling in the toes and fingers; a numb feeling; something rises in the throat; eyes smart; ringing in the ears; face prickles; pressure inside the head. Among the preliminary symptoms which were more distinctly psychical were: Self-consciousness; "feel as if being looked at," "feel foolish," "confused," "feel as if I was going to blush."

That a blush is no mere local hyperæmia of the surface seems evident enough—there is vastly more in a blush than that. The diffused bodily feeling, pressure on the chest, general discomfort, increased heart-beat, dizziness, pressure in the head, confusion, dread, all evidence a profound disturbance of the vaso-motor functions, and strong emotion.

It is to be noticed that the feelings, flashes, tremors, given among the preliminary symptoms all pass upward, whereas as shown in the cases of blushing, the actual redness has no definite course of spreading.

The fact that hot waves, flashes, etc., are felt in a part does not prove that the part is involved in the blush. The testimony of Sir James Paget, the English gynæcologist, who during three years made notes of cases for Darwin, in regard to the extent of the blush, shows that the actual redness is confined to the face and neck, occasionally appearing in the hands, though a few marked exceptions were recorded.

As regards the diffused waves and flashes, it is well known that an increased flow of blood to the brain is accompanied by (if not due to, as some physiologists maintain,) arterial contractions in other parts of the body, especially of the splanchnic area. As the blush subsides there is a redistribution of blood in the surface of other parts of the body, accompanied by tingling, prickling, often sweating.

In several papers the flash of heat is said to commence at the waist or chest, and passes upward; this accords very well with what is known of the mechanism of changes of blood pressure in restricted areas, as given above.

Some of these effects are undoubtedly due to the momentary cessation of the heart beat, there is a temporary lowering of general pressure, and anæmia of peripheral blood vessels, then a sudden renewal of heart action and increased pressure.

Where the heat is felt during the flush : The face is mentioned 58 times, neck 31, cheeks 31, ears 21, chest 15, hands 13, forehead 12, all over 11, legs 4, head 4, back of neck 2, back 1, lips 1.

As accompanying phenomena there are : stuttering ; tingling, felt in fingers, ears, forehead, neck, arms, all over ; quivering of mouth, eyelids, cheeks, all over ; twitching of hands, arms, neck ; hands and legs shake nervously ; twinges in the temples ; headache, dizziness, fingers numb and cold ; creepy sensations in the hair, burning in the hands ; shrinking sensations all over ; "cold tweaks" over the face and down the chest ; roaring in the ears ; drooping of the eyes ; involuntary movements of the hands. Most of these seem to be due directly to the vascular changes.

*The Reactions.* Chill is mentioned as a reaction 27 times ; perspiration, 8 ; weakness, 8 ; pallor, 7 ; headache, 3 ; color remains, 3 ; nervousness, 2 ; confused feeling, 2 ; feel foolish, 1 ; smarting of the eyes, 1 ; warmth, 1.

The causes are :

Remembrance of something, 14 ; told they are blushing, to blush, not to, 13 ; mistake, 11 ; looked at, 11 ; teased, 11 ; excited, 6 ; praised, 5 ; angry, 4 ; reciting, 3 ; introduced, 3 ; talked about, 3 ; found out, 3 ; embarrassment, 3 ; shame, 3 ; joy, 3 ; meeting some one, 2 ; talking, 2 ; working, 2 ; feelings hurt, 2 ; expect some one, 2 ; surprise, 2 ; interested, 1 ; startled, 1 ; fear, 1 ; sorrow, 1 ; warmth, 1 ; spontaneous, 1 ; fatigue, 1 ; anything said about flowers, 1 ;—eight flushed when alone, and two unconsciously.

It must be noticed that we have here to take into account that blushing accompanies entirely different mental states. The blushing from joy for instance, from fatigue, interest, sorrow, etc., must be kept distinct from the blushing from embarrassment and shame. Then there are the spontaneous flushings of different parts of the body which some experience. These, perhaps, have had their origin in entirely different states. Attention is confined in this paper, mainly, to blushing from the self-conscious states.

*Physiology.* The physiology of flushing has been partially made out by experiments upon animals. Lesion of the superior cervical ganglion, or of the center in the medulla, or section of the sympathetic nerve will produce blushing over the surface of the head and neck.

The circulation in the head is largely under the control of the superior cervical ganglion, which innervates the external carotid and its branches.

Until comparatively recently it was believed that this ganglion innervated also the internal carotid and its branches within th

skull, controlling the blood supply in the "dura matter, the vessels of the anterior and middle brain, both basal ganglia and cortex, the latter through the vessels of the pia mater." (The quotation is from The Influence of the Sympathetic in Disease, by Dr. E. Langdon Fox). But later experiments have tended toward the conclusion that there is no direct control of the cerebral circulation by means of the sympathetic. There is space here only for reference to the work of Roy and Sherrington, Leonard Hill [1] and others. In a paper in the Journal of Physiology, Vol. 18, 1895, by Baylies, Hill and Guilland, the following conclusion is reached: "The brain has no direct vaso-motor mechanism, but its blood supply can be controlled indirectly by the vaso-motor center acting on the splanchnic area."

Still, apart from the direct vaso-motor control, the relations between the internal and external circulation in the cephalic regions is very close, and we can easily understand how any strong stimulus affecting one may affect the other by purely mechanical means. Darwin makes account of this in his theory of blushing. "It is not strange, he says, that the moral causes which induce intense blushing, should likewise cause, independently of their own disturbing influence, much confusion of mind." Darwin thought that the blush spread from the outside to the inside, and produced the mental confusion, a conclusion which the evidence does not warrant. There is no reason to assert that the external disturbance is primary and the internal secondary; and there are many facts which point toward an exactly opposite conclusion. The feelings of engorgement, fear and confusion which are often felt as the first symptoms of the blush, indicate that there are changes in the cerebral circulation, and all the evidence is to the effect that the actual redness of the surface comes late in the nerve storm, and is really but a very small part of it.

The physical accompaniments, especially the preliminary symptoms, show the strong resemblance between blushing and fear. The tremor, weakness of legs, weight and constriction in the chest, cessation of heart beat, palpitation, are all common in fear states. But it is on the psychic side, and especially in morbid cases, that the fear element is more plainly seen. In one case there was an indescribable feeling of helplessness which preceded the blush. Dr. H. Campbell speaks of the epigastric and cardiac aura in blushing. In another morbid case cited by him there was alway a feeling of dread before an attack, and an almost uncontrollable impulse to run, all without any adequate cause.

[1] The Physiology and Pathology of the Cerebral Circulation.

In a case of neurasthenia recorded among our cases, the same uncontrollable dread was felt before the redness appeared. The fear, with a feeling of constriction in the chest, were the first warnings of the blush.

The shock element plays an important part in the causes of blushing. It is the sudden remembrance of something, when the mind is occupied with other things, looking up suddenly to find some one is watching you, meeting some one unexpectedly, and all such surprises as these that are very likely to cause blushing. There is a "caught in the act" feeling about it. It seems as if one could meet a weight of convicting evidence unblushingly, if he is prepared for it, but to have his sins "sprung" on him is an entirely different matter. The cases in which a flash was felt, or something like an electric shock, are in point here.

*The Mental State.* What is the mental state which underlies the propensity to blush? It has been variously described as fear, shyness, bashfulness, self-consciousness.

Dr. Campbell expresses the opinion that nine-tenths of all blushes are from a feeling of shyness, and that they are unnatural and morbid. The natural blush, from a sense of shame at discovered guilt is comparatively infrequent, according to the view taken by this author. But an infant does not blush, at least from any such state as bashfulness or shyness. He turns red from anger, and other causes, but he does not blush. It is not until the age of 3 or 4, according to all observers, that children begin to blush. Still children much younger than 3 or 4 exhibit shyness. A child of 13 months, observed by the present writer, is extremely shy. When approached by a stranger he averts his eyes, and covers his face with the backs of his hands. But there is no change of color. It is only with ths development of ideas of self, of self-consciousness, that blushing begins. Shyness and bashfulness seem to be two very differerent states, and there is no reason for asserting that they are identical, or that they have had a common origin in the race.

Camille Melinand's conclusion that the desire for concealment is at the bottom of all mental states in which blushing occurs, seems to be in the main correct. This is the feeling as nearly as it can be expressed in words: "I have the feeling that others see in me (and it must be added I am afraid they will see in me) that which I wish to conceal." It is not always, however, the revealing of faults or defects that causes blushing. Some people blush when praised. Many are sensitive about disclosing their finer feelings.

This instinct of concealment, of course, centers about the concealment of the person. It is an element that enters into nearly all cases, and is in all probability the original form of

the instinct of concealment. Being looked at is disagreeable to a great many people, causing all degrees of emotion, from slight annoyance, and nervous action, to positive terror and flight. It is a brave man, indeed, who can endure a stony stare without flinching. This topic is closely connected with the fear of persons, which forms a chapter by itself in fear, and cannot be entered into here. It is sufficient to say that this group of fears is very complex, and that they cannot all be traced to a common origin.

All the evidence seems to point to the conclusion that the mental state underlying blushing belongs to the fear family. The presence of the feeling of dread, the palpitation of the heart, the impulse to escape, to hide, the shock, all confirms this view. That blushing is an unpleasant sensation, seems to be generally admitted. In all the papers in which that point was touched at all, it was spoken of as annoying, and entirely uncontrollable. Dr. Campbell cites instances of men who have given up their occupations on account of immoderate blushing.

*Blushing and Sex.* Turning again to the causes of blushing, we find that teasing about the other sex leads. Then follows attention called to the blush, etc. Boys of 10 or 12 are especially susceptible to teasing about girls; one boy of 10 always cried if teased. The mention of a name, being introduced to a stranger, meeting a man, are other frequent causes.

It is generally agreed that blushing increases at puberty, though, of course, nothing is shown by the few cases here in which the age was given. It is the maiden's blush that is the poet's theme. With the influx of emotions at puberty, and the turning inward of the consciousness, come in more strongly the shyness and the "concealment psychosis" which is the substratum of the blush. Darwin relates that in the slave markets of Turkey the girls who blush readily bring higher prices than those who do not.

Blushing has always been regarded as a mark of beauty in the female. One has only to turn to the poets to be convinced of this. The use of cosmetics is in point here also. This being true we can see how sexual selection has played its part in preserving the blush. There is some evidence, I believe, which tends to show that the blush was once more widely diffused than its present narrow limits, and in women of certain lower races, the blush spreads lower than the neck. The limit might readily be supposed to have been narrowed by selection, the richness of color being opposed to a wide radiation of it. Darwin believes that it is attention to a part that has produced blushing. His theory, in brief, is this: Attention to any part of the body tends to produce capillary activity in that part. The face has been the chief object of attention—our self atten-

tion is excited almost exclusively by the opinion of others. Whenever we suppose that others are deprecating our personal appearance, our attention is strongly drawn to ourselves, especially to our faces. The probable effect will be to excite capillary activity through the sensory nerves and the vasomotor system. By frequent reiteration during numberless generations the process will have become so habitual in association with the belief that others are thinking of us, that even a suspicion of their deprecation suffers to relax the capillaries, without any conscious thought about our faces.

This is the nearest approach to an explanation that we have, but it seems inadequate, indeed, when we take into account how little is really known of the physiology of attention.

That fact that the blush is more widely diffused in some peoples, had led some to believe that the blush once extended over the whole surface, that it is a part of the general eretheism of sex; that gradual narrowing of its limits has been brought about by sexual selection; that shame originated in sex, and the shame par excellence is still related to it. Blushing is then (according to this theory) an atavistic trace of a more widely diffused sex-erethism. There is some evidence to support this theory, but a full discussion of it cannot be undertaken here. It would offer a ready explanation of the cases in which blushing is pleasant, but the fact that the great majority testify to the unpleasantness of the sensation is weighty evidence against so close a connection with the erethic side of sex.

Blushing is very much more common among girls than boys, with women than men. It remains to a greater age in women than in men, as Darwin has pointed out. Old men seldom blush, whereas it is frequent in old women.

The predominance of this state in the female, leads one to believe that the shame psychosis had its origin there—and according to the law of fusion, and gradual disappearance of the line of demarkation of the male and female sex-states (see Scott p. 207–208, Sex and Art, Geddes and Thompson, The Evolution of Sex, p. 270), with the development of self-consciousness, and the irradiation of the "concealment" instinct to the moral and intellectual spheres, the original sex-distinction was lost, and the blushing state appeared in the male.

To sum up: The distinct fear symptoms disclosed in the blushing state, its intimate connection with sex-states, its predominance in the female, seem to warrant the conclusion that it is a relic of the ancestral sex-fear.

# LITERATURE.

*L'Attenzione e i suoi Disturbi. Saggio di Psicopatologia clinica.* DOTT. SANTE DE SANCTIS. Roma, 1896. 46 pp. 8vo.

In this essay—reprinted from the *Atti della Società Romana di Antropologia* (Vol. IV., Fasc. 1, 1896)—which contains a general *aperçu* of the subject, with numerous bibliographical references and notes, Dr. De Sanctis reaches the following conclusions: (1) Attention is a function, a cognitive finality, belonging to the animals and to man, which, as far as its mechanism is concerned, must be considered as independent of consciousness, memory, and will. (2) The analysis of sensorial attention (especially visual) and the study of the ontogenesis of attention show that it passes through two stages of development, *viz.*: *(a)* fixation more or less lasting of the attention on a single object. *(b)* Simultaneous fixation on several objects, or distribution of attention. This second stage is to be considered higher than the first, not only through its intimate mechanism, but also because it supposes a more advanced development of the will and of the other psychic functions. On the last page of the essay, the author gives his classification of the phenomena of attention.

ALEX. F. CHAMBERLAIN.

*I Fenomeni Telepatici e le Allucinazioni veridiche. Osservazioni critiche sul Neomisticismo Psicologico.* PROF. ENRICO MORSELLI. Firenze, 1897. 58 pp. 8vo.

This scholarly and thoughtful essay, originally contributed to the *Archivio per l'Antropologia e l'Etnologia* (Vol. XXVI, Fasc. 20, 1896), is by far the best brief statement and criticism of the phenomena of "psychologic neo-mysticism," telepathy, and hallucination, in existence. Bibliographical notes and references abound, and the author has traversed every section of the field, from mesmerism to the Röntgen rays, from clairvoyance to panpsychism. The mere enumeration of the names current in this "new science," shows how active the minds of some men have been; "Neurosomnology," "vital electro dynamism," "telepsychism," "objective premonition," etc. The fact that so large a number of human beings believe in these things calls for serious scientific study and investigation, albeit the Psychical Research Society has many imitators in Continental Europe. Lombroso, the criminologist, has recently opened a rubric in his *Archivio* for "mediumistic facts"—and other more seriously constituted men of science have turned their attention in similar directions. Prof. Morselli states (p. 24) that no case of real telepathy has come to his knowledge—he does not deny the possibility, but waits still for the fact. He rejects the spiritistic explanation of the phenomena in question—"spiritism," is, as Prof. Venanzio rather forcibly said: "the product of the putrefaction of old religions." Morselli seems disposed to look with a little favor on the theory of exopsychism or hyperpsychism, the only one deserving of consideration alongside the physiologico-psychological.

ALEX. F. CHAMBERLAIN.

*Emozioni e Sogni.* Del Dott. Sante de Sanctis. Reggio—Emilia, 1896. 27 pp. 8o (Reprint from the *Rivista Sperimentale di Freniatria*, Vol. XXII, Fasc. iii, 1896).

In this essay, based upon the examination of 200 normal individuals (150 men, 50 women), 43 prostitutes, 125 criminals (24 women), 10 hypochondriacs (men and women), 14 melancholiacs (men and women), 60 phrenasthenics, and a considerable number of neuropaths and other *aliénés*—Prof. De Sanctis considers the following questions: (1) Are the emotions had in waking reflected in dreams, and how? (2) Are the emotions had in dreams reflected in waking, and how? His conclusions are: Oniric emotiveness is a safe index of true organic emotiveness—the anemotives and the insensitives do not become emotional in dreams. Oniric activity is not a pale shadow of the past, as Delbœuf says—Délage and De Manacéine are right, rather, who hold that there is a real antagonism between waking-activity and dream-activity, and that we do not re-dream what has made the deepest impression and occupied the mind the most. With Titchener, De Sanctis recognizes the great difficulty, if not impossibility of pure emotional recollection. He regards as a morbose phenomenon, psychogenetically low (dogs, infants, hystericals, neurasthenics), the habitual repercussion of all the emotions of waking in oniric activity, and *vice-versa*. When there is no clear delimitation between the dream-consciousness and the waking-consciousness, we must admit a defect of organic resistance. The paper is well furnished with references to the literature of the subject.

Alex. F. Chamberlain.

*I Sogni nei Delinquenti.* Sante de Sanctis. Roma, 1896. 16 pp.

This article, reprinted from the *Vita Italiana*, gives the results of the investigation of the dreams of 40 male criminals in the Casa Penale, at Orvieto, and of 85 others (of whom 61 were males, 24 females) in the prison of *Regina Cœli* and the Casa Penale of Villa Altieri and Civitavecchia—these last were free from any nervous malady, and were selected from among the worst subjects in the jails, and so may serve as typical criminals. The points considered in the investigation were: (1) the number and frequency of dreams, (2) the content of the dreams. Those who never dream at all are distributed as follows: out of the 40, 5; out of the 61 men, 24; out of the 24 women, 3; a total of 32 out of 125. The proportion of those rarely dreaming is, respectively, 22, 28, 14, or a total of 64 out of 125; and that of those who dream often, 13, 9, 7, or a total of 29 out of 125. It appears, also, that criminals (according to their own report) dream less when at liberty than when in durance; in jail the greater criminal, the less dreams. As to dream-content the following facts are manifest: Out of 93 criminals (including 21 women), the dreams of 66 (13 women) are indifferent, and those of 27 (8 women) only emotional. Of these 93 also, 11 (4 women) re-dream their crime, unemotionally, and 11 (no women) re-dream it with emotion. The typical answer of the criminal is: "I sleep well, dream little, dream of liberty." In general, then, delinquents sleep soundly, dream seldom and little; their incarceration, however, favors dreaming; oniric emotion is rare in criminals.

Alex. F. Chamberlain.

*Animals at Work and Play*, their activities and emotions, by C. J. Cornish. New York, 1896.

The author here gives us a series of essays on the psychology and habits of animals. The essays on "Animal Sleep," "The Animal

Dislike of Solitude," "Animal Courage," "The Basis of Animal Myth," and "The Wild Boy of Pindus," especially are readable and suggestive. In the latter essay he points out that the "relapsed man," that is, the man who has run wild after civilization, is a wholly different creature from "wild or feral man," who has never been tamed. In his degeneration he seems by a sudden fall to reach a point far lower, physically and mentally, than the Fuegians or the Digger Indians. War, famine, pestilence, and wolves are the most favorable means of producing him. This particular wild boy went often on all fours, and in that posture ran fast; ate nuts and roots; sucked up buttermilk as a horse drinks water; went naked; can mimic animals' sounds; possesses a wholly carnivorous appetite, the voice of a wild beast, extreme ferocity, and a temper quite impossible to humanize. He never laughed or smiled, and destroyed all clothes given to him. The work is full of suggestions to the thinking psychologist, and is written in a very pleasant style. ARTHUR ALLIN.

*The Survival of the Unlike*, a collection of evolution essays suggested by the study of domestic plants, by L. H. BAILEY. New York, 1896.

A very suggestive work, and one from which a psychologist may derive much benefit. The first part of the work deals especially with the general fact and philosophy of evolution, the latter part with evolution in horticultural matters. An interesting point clearly enunciated in the first part is the nature of the divergence of the plant and the animal. These two lines evidently originated at a common point. The common life-plasma was probably at first more animal-like than plant-like. Both lines probably started out with a more or less well marked circular arrangement of all the parts or organs. This was consequent upon the peripheral arrangement of the new cells in the development of the multicellular organism from the unicellular one. Two types of animal life appeared, one circular or rotate in form, and the other bilateral, more or less longitudinal, vermical or worm-shaped, and cephalic or head-shaped. This is the chief form or type of evolution in the animal world. The minor or less successful type in animals is the rotate or circuler form. Out of the worm form type all the higher ranges of zo-otypic evolution have sprung. The contrast with plants is instructive. The rotate or peripheral arrangement of parts is emphasized in all the higher ranges of forms. Plants soon become attached to the earth, i. e., become "earth-parasites." Thus the development of plants is more or less centrifugal and that of animals centripetal. The evolution of plants has been acephalic, diffuse or headless, and there is a lack of concentration of parts. The circular form of development has not proved to be the most successful. One is almost tempted to say, in reference to psychological development, "Beware of all-round men."

The author is very decidedly opposed to Weismannism. His arguments against the hypothesis of the "germ-plasm," drawn mostly from horticultural instances, seem conclusive. His arguments are, however, often quite diffuse, and too often repeated.

ARTHUR ALLIN

# BOOK NOTES.[1]

By G. S. H.

*The Treatment of Nature in English Poetry*, between Pope and Wordsworth, by MYRA REYNOLDS. Chicago, 1896. pp. 290.

This valuable thesis, although no doubt suggested by Biese, and largely following his spirit, works in a field opened by Shairp, Veitch, and others, and treats gardening, travels, fiction, and landscape painting, in separate chapters.

*Das Elend Unserer Jugend Literatur*, von H. Wolgast. Hamburg, 1896. pp. 218.

This is a contribution to art education, and deals only with poetic juvenile literature. "Tendence" literature written to preform public opinion is low art. "To write for youth, never write *for them*," is the author's motto. Poetry that is merely exciting, pretty, or amusing, should never be read. Poetry addresses the feelings, and these are at their best in children, or know far less difference in age than intellect. Children should never read except for instruction and edification. Most child editions of classics are barbaric. The religious writers for children are on the lowest art plane. Only piety and the book business gives this literature any vogue. Indian tales and female writers for children are mostly low, and the world would be better if poetry specifically for children were abolished, and they were never allowed to read for pure amusement and pastime, and the best things that great men in their boyhood have liked best were determined by a careful study of their biographies. This would give children the masterpieces they like and enjoy best.

*Das Interesse.* Von. D. W. OSTERMANN, Leipzig, 1895. pp. 92.

This is a psychological investigation with pedagogic applications to show that the only sure and permanent mainspring of mental activity is a genuine interest. To feel a thing important, of value, to love it, or to feel a subject, are all synonymous of interest. It alone focuses attention, whether voluntary or involuntary, makes associations that last, arouses strong motives, and awakens the will, warms and expands the soul; and may be, in the well-known Herbartian phrase—religious, sympathetic, patriotic, æsthetic or ethical. It should be the motive of all study, and teachers should be graded by their power to rouse it. Abstract directions how to do it follow, and are less interesting.

E. Halevy in the *Rev. de l'Enseignement*, Dec '96, has an article on philosophical seminaries in Leipzig and Berlin. After describing the work of Stumpf, Wundt, and others, the writer concludes that there is at present no philosophical spirit in the German universities, or rather they have a philosophy which is really the negative of philosophy. In its place economism and practical materialism rules. Socialism reigns everywhere, proud, complacent and confident. Student societies agitate doctrinaire social views. Germany has become

[1] These notes do not preclude fuller notes later.

a simple industrial state. Hegel has become "ein Ekel," or nauseating in his own university, while Bismarckian realism dominates all. Let this be a warning to France not to suppress philosophy in the Lycées. This, we think, a very extreme view.

*The Myths of the New World.* A treatise on the symbolism and mythology of the *Red Races* of America, by D. G. BRINTON. Third Revised Edition. Philadelphia, 1896. pp. 360.

This revision was needed, and has been thorough. Much has been rewritten, and fifty new pages added. It now constitutes the best general treatise we have on the chief religious ideas of our aborigines, and is a work of great value and interest.

*The Story of Atlantis*, by W. SCOTT ELLIOT. London, 1876. pp. 71.

Four large colored maps accompany this work. The first represents Atlantis in its prime as filling most of what is now the Atlantic Ocean, as it did 1,000,000 years ago. The next shows it between the catastrophies of 8 to 200,000 years ago, with wide, large opening between it and both the old and new world. In the third it has shrunk to two vast islands, Ruta and Daitya, and after another assumed catastrophe 80,000 years ago it shrunk, as Posidonis, to vanish, 9567 B. C. Mexican antiquities and the Popul Vuh, Akkadian, Mongolians, Semites, Lemurians, root and sub races, Plato, Cro-Magnon, Rmoahals, Vritya, ideal schools, religion, society, wonderful inventions, female equality, the introduction of wheat from another planet, and later sorcery, human sacrifices, monstrous animals, and wherever these fail theosophic insight and astral impressions, intermediate beings and "thought transference," make up a strange repertory, with occultism in the chief rôle.

*Habit and Instinct*, by C. LLOYD MORGAN, F. G. S. London, 1896. pp. 357.

This volume is in substance the author's Lowell course in Boston, and contains 15 chapters. Some habits and instincts of young birds, and their locomotion, young animals, the relation of consciousness to instinct, imitation, relation of emotion to instinct; some pairing, incubative, and migratory habits, inheritance of acquired character;—these are the leading topics. The book is good, and new in spots, but its rather painful shortcomings and disappointments can perhaps best be described in a phrase by saying that the author's speculative and empirical tendencies constantly impede each other. His speculations are particularly unsuggestive and ineffective.

*L'Enfant, son Passé, son Avenir*, par E. GRIMARD. Paris. pp. 388.

This dateless book has three parts, hygiene, physiology, and education. The author has a deep sense of the importance of infancy, and his history of the education of very young children shows some research, but as a whole it deals with vague generalities, and may well serve as a background from which to measure recent progress, of which this author seems to have heard nothing since Pryer.

*Juvenile Offenders*, by W. DOUGLAS MORRISON. N. Y., 1897. pp. 317.

The best way of diminishing the everywhere growing ratio of habitual crime is by better methods of treating juvenile offenders and minimizing the causes. Extent, distribution, sex, age, physical and mental, parental and economic conditions, are each given a chapter, and, in the second part, admonition, fining, corporeal punishment, imprisonment and corrective institutions are discussed. The latter

are favored, and flogging is opposed. The book is the work of a wise and experienced man, but takes hardly any account of modern criminology of the European school.

*La Puberte chez l'homme et chez la Femme*, par Le Dr. L. Biérent. Paris, 1896. pp. 200.

This is a convenient and, indeed, admirable summary of the anatomical and physiological changes that take place at puberty. The author summarizes and digests the results of nearly 60 special memoirs, mostly French, on the effects of this change on each organ and tissue.

*Plants and Their Children*, by Mrs. Wm. Starr Dana. N. Y., 1896. pp. 272.

This is proposed as a botanical reader in six parts; fruit and seed, young plants, roots and stems, buds, leaves and flowers. Miss A. T. Smith has added 277 good pictures, and stories are interspersed. The final chapter, on Learning to See, is pointed, and altogether the book must awaken love for plants, and is well fitted to lay the foundation for more systematic study later.

*Mother, Baby and Nursery*, A manual for mothers, by Genevieve Tucker, M. D. Boston, 1896. pp. 161.

The pre-natal period, birth, dress, sleep, crying, eyes, nursing, hearing, teething, posture, habit, baby-foods, and many useful nursal hints, make a practical and attractive book.

*In Childhood's Country*, by Louise Chandler Moulton. Boston, 1896. pp. 56.

This is the second volume of the Yellow Hair Library, and is illustrated by Ethel Reed. The pink and rose agree to look bright as a child approaches; a robin is buried; two little girls vainly wait for Little Boy Blue, who breaks his appointment because "he is a man," and men are never true; ten little girls are on a train specially conducted; he was vexed at his mamma, but when he was ill she cared for him; pictured girls on a fan, perhaps left a lover off in Japan; and about thirty other scraps with pictures, that admirably match this ultra impressionist inanity. Cannot at least the children be protected from insidious psychic disintegration? It is puerile, but not juvenile.

*Paper Doll Poems*, by Pauline King. N. Y., Century Co., 1896, pp. 65.

Each page has pictured paper dolls, with a few lines of sprightly poetry beneath, describing their gestures, postures, and acts. The dolls are often cats, horses, chickens, owls, geese, fish, boots, dogs, parasols, and some combinations with adventures. It is very light amusement for very idle children, and makes a pretty and unique booklet. The verses are for far younger children than could make the dolls, so that a governess with deft scissors should go along with the book.

*Fairy Starlight and Its Dolls*, by E. S. Blakeley, illustrated by Lucy F. Perkins. Chicago, McClurg & Co., 1896. pp. 213.

Bianca was eight and had four dolls, big, little, colored, and wax. One night a star fairy appeared in a dream, animated her dolls, gave them the power to talk, play and do all sorts of things, and she shrunk and became a doll with them. Great adventures they had. The flowers talk to them, and tell how they grow, etc. They meet and learn about many animals, and nothing hurts here. Policemen dolls, talking horses, monkeys, parrots; they meet thoughts personified;

toy animals come to life. They ride fireflies, turtles; and even paper doll land is full of life.

*The Wonderful Fairies of the Sun*, by ERNEST VINCENT WRIGHT. Illustrated by Cora M. Norman. Boston, 1896. pp. 66.

This is a very tasteful book. The raindrop elves drop with scrubbing brushes and clean houses, windows, streets, etc., and then the wind god gathers them up in schools in clouds. The snowflake fairies wake up near the pole at the call of the north wind, get out their rigs and float down. The rainbow fairy lived in a star, and polished some up and stuck them together, and built an arch, and hosts of artists with umbrellas painted it. Fairy girls make fleecy clouds, fairy men forge the thunder clouds and put in dynamite, and work magic lanterns. Wind fairies have each a very distinct character and life, in each is one of the points of compass. Night and morn, and frost fairies also, are each pictured and besung in lively verse. Personification is carried to an almost grotesque extent, but the effect on an adult is pleasing, and it must titillate the childish palate.

*The Great Didactic of John Amos Comenius;* tr. by M. W. KEATINGE. London, 1896.

This chief work of the great pedagogue of objectivity has never before been "Englished." The long introduction of 173 pages gives a better account of his life and works than has hitherto been accessible in English.

*Geometry for Kindergarten Students.* By ADELINE FULLON. London, 1896. pp. 198.

This manual has little if anything to do with Fröbel, but is interesting as showing what the National Fröbel Union thinks the necessary examination requirements for teaching in the Kindergarten.

*Introduction to Elementary Practical Biology, A Laboratory Guide for High School and College Students*, by C. W. DODGE, M. S., Professor of Biology in the University of Rochester. N. Y., 1896. pp. 477.

This is a pedagogical new departure of great interest, in the degree to which it subordinates instruction to practical work. The student is given almost no information in the book, but is asked many questions, and given copious directions. We confess to some degree of skepticism as to such a method for beginners. Students, we are told in the preface, no longer want instruction, but seek the training which will fit them for research. This is education in the true sense; verification of printed statements, too, is tedious. Questions are the best guides.

*Life and Labor of the People in London.* Edited by CHARLES BOOTH. Vol. VIII. Population, classified by trades. London, 1896. pp. 480.

This series of volumes, abounding in tables and statistics which involve great labor by many coadjutors, constitute the record of a new and strange field of pedagogy with a charm all its own. The chapter and curves showing the condition of domestic indoor servants is a model of painstaking presentation.

*Die Formen der Familie und der Formen der Wirtschaft.* Von E. GROSSE. Freiburg, 1896. pp. 275.

This is a contribution to the history of the family and of domestic economy. The types here described are the higher and lower pastoral, agricultural and hunter families, to each of which a chapter is

devoted. The conclusion is that the family form is entirely dependent on economic relations.

*The Law of Civilization and Decay.* An Essay on History, by BROOKS ADAMS. MacMillan Co., 1896. pp. 393.

The walls of the Johns Hopkins University department of history were long decorated with the maxim of Blünchli, that history is part politics, and politics is present history. This view ignores the direct, unconscious influence of nature, which Buckle and now the entire anthropological school represent. Mr. Adams assumes this latter view, which is in direct opposition to assumption of the historical school of Baltimore. "The exceedingly small part played by conscious thought in moulding the thought of men" is one assumption of this book. "At the moment of action man almost invariably obeys instinct like an animal; only after action has ceased does he reflect." "Life is one of the outlets of solar energy." All in all, it is a fascinating and a *new* book, by a former professor of Harvard, more about whose views many have long wanted to hear.

*Untersuchungen über die Einflüsse der Arbeitsdauer und der Arbeitspausen auf die geistige Leistungsfähigkeit der Schulkinder.* Von J. FRIEDRICH; Zeitschrift für Psychologie und Physiologic der Sinnesorgane.

Twelve sentences, with nearly the same number of letters, were dictated in different parts of the school day, and all errors tabulated. The method and subject matter were as like the regular school work as could be made. Simple problems, like those of Laser and Burgenstein, were also used, and in all the ordinary precautions against error were observed. In all these tests the quality of work declined as the length of the work period increased, as Höfeners had before found. It also declined as the school day advanced, as Griesbachs had found. Most errors were at the close of the afternoon session. The long nooning improves quality, but never makes it equal to that of morning work. Short but intense periods of work are best. There should be a rest of 8 to 10 minutes at the end of every hour. The hardest work should come in the morning, and the easiest, like writing, penmanship, etc., should come last. It is a question whether afternoon sessions should not be abolished, especially in lower grades. Not only would the total sum of work be increased, but health would be greatly favored.

*Jahn als Erzieher.* By J. FRIEDRICH. München, 1896. pp. 192.

This fills a long felt want, and gives us an admirable bird's eye view of the great founder of the Turner system. His life is told in 34 pages and then his system is presented, partly in quotation, but systematically arranged under convenient topics and with a good index.

*Comenius und Pestalozzi als Begründer der Volkesschule.* By DR. H. W. HOFFMEISTER. Leipzig, 1896. pp. 97.

The school system of this century rests on these men. Comenius is the objective and Pestalozzi the subjective author of the modern folk school. The nature, basal ideas and method of each is discussed with exact reference to the texts, and digests of their writings follow, with copious footnotes.

*Hegel as Educator.* By FRED. LUDLOW LUQUEER, PH. D. Macmillan & Co., N. Y., 1896. pp. 185.

This is a very valuable study of Hegel's life and pedagogical views, and which may also serve as an introduction to his philosophy. It is, indeed, a new point of view from most English writers who have sought

to master his philosophy from the pages of Caird, Wallace, Sterling, Harris, Royce, etc. In contrast to the abstruseness and uncertainty of interpretation of the logic and phraseology, we have here a fascinating and translucent presentation of great value which is sure to be welcomed by every one interested in the larger aspects of education.

*Hygienisches Taschenbuch.* Von DR. E. v. ESMARCH. Berlin, 1896. pp. 290.

This little pocket volume is a model of condensation of scientific hygiene, treating air and its tests, ground, water, buildings, heating and ventilation, closets, schoolhouses, hospitals and disinfection in summary and almost epigrammatic brevity, and with many useful tables.

*Schulgesundheitslehre.* Von DR. H. EULENBERG and DR. U. BACH. Berlin, 1896.

Three parts of the enlarged second edition of this, perhaps, on the whole, best German work on school hygiene, are now before us. After a valuable historical introduction, the ground, earth, and situation of the schoolhouse are discussed; then the plan and material of the foundation, including different mortars, stones, cellar, basement, water tables, drainage, etc., and, passing up story by story, wall, windows, blinds and curtains, floors and modes of keeping clean, halls, closets, dressing rooms, roofs, chimneys, ventilation, many plans of floors and rooms, gardens and yards, and open-air gymnasiums, play grounds, etc., all for different grades and classes of city and country schools. The seating and seats, and desks for standing and sitting, all with many cuts and literary references, these are the topics that fill the first 320 pages thus far published.

*Die Hauswirtschaftliche Unterweisung der Landmädchen und Frauen,* von W. HERSTATT and DR. OTTO KAMP. Wiesbaden, 1896. pp. 409.

This is an enlarged new edition of a work published in 1894. The first author is an economist, and the last a teacher and specialist in domestic education, and together they describe existing institutions and suggest improvements and new ones. Cooking, dairying, poultry keeping, kitchen gardening, fruit raising, bee keeping, female handiwork, and other similar schools and courses are described separately in each of the chief European countries. The book abounds in novelty and interest, and suggests many new departures.

*Manuel Pratique, etc.,* par DRS. FOUGERAY and COUETOUX. Paris, 1796. pp. 788.

This manual is devoted to special methods of training deaf mutes, blind, idiots, stammerers, etc., and also gives statistics, accounts of instruction and legislation. Each class of defectives is treated separately, with a concluding fifth part on combined abnormalities. A score of cuts of operations and many cases of special interest are given. There is no reference to other literature on the subject, and the authors' knowledge of foreign institutions and writers is very limited. The work is valuable and interesting, but the 10-page introduction by Bourneville is perfunctory and jejune.

*Handbuch der Erziehungs-u. Unterrichtslehre, für Höhere Schulen.* von DR. A. BAUMEISTER, I. Band. 2. Abteiling. München, 1897. pp. 894.

This ponderous second part of the first volume of a handbook on higher education, which the author, with 16 coadjutors, is slowly is-

suing, is of special interest as containing an account of American institutions by Professor Wheeler of Cornell, Professor Thurber of Chicago. Reports from other countries are written by those competent to discuss the several topics, and all is brought well up to date. All who discuss colleges and high schools in Europe will find this work the best and fullest as well as latest.

*Parakites*, by G. T. WAGLOM. N. Y., 1896. pp. 91.

This is a treatise on making and flying tailless kites for scientific purposes and for recreation, and has about 40 illustrations. Kites were sent to heaven as a religious rite 1000 years B. C. Long ago men were lifted by them in the East as war spies. The angle up is always over-estimated, and so kites are hard to hit by shooting. Fabulous heights were reported of kite battles, with prizes for beauty. Betting, sacred kite days, wheels, whistles, fish, birds, knots and twine, frame and cover, springs and scales to measure the pull, all kinds of electric and barometric attachments, the interest of birds in them, spools and windlass, flyers, mathematical problems, photography from a kite with specimens, trains and relays, kite names, "signal phabets," winds, and weather, aeroplanes, and how to support a 10-foot flag, these are some of the topics.

*Die Unruhe*. Gütersloh, 1896. pp. 62.

This is the first in a series of contributions to Pedagogical Pathology, by Arno-Fuchs. Unrest is a theme well fitted for bringing out the relations between morbid and normal states. Undue irritability of association, of will, and, most of all, of feeling, is one of the chief expressions of nervousness and degeneration. Authority, control, power to forbid and obey are negative conditions of cure; interested occupation is its positive side. Rapid change of normal quiet, relapse of psychic activities, whether due to fatigue, shock, excessive imitation, impulse or general lack of inhibition, is favored by many modern methods. Herbartian psychology gives us both the key and cure.

*About Children*. By ROSE PORTER. Putnam's Sons, 1896. pp. 221.

This tasteful and agreeable little book is a compilation of the sayings of literary men and women about children, arranged calendar wise by months. Shakespere has all February; Wordsworth and Coleridge divide May between them. A medley of authors fill the different days of September, etc. The selections are well chosen and interesting.

*The Lovers' Year Book of Poetry*. By H. P. CHANDLER. Two vols. Roberts, Boston.

This is a collection of love poems for every day in the year, but love is treated as inclusive of children, so that some of the best selections are of married and especially child-life.

*Essai sur le génie dans l' art*. Par GAB. SEAILLER, 1897. pp. 313.

The vast rôle of spontaneity in thought is a continuation and extension of life; thought, first studied, being their harmony. Inspiration is simply accord of all the inner powers. Genius thus does not break the continuity of things. Genius does not reason, it is reason, is free and self-justifying; to be beautiful and to love beauty are excess of life. Work becomes play. Art is not realism, but man added to nature. Genius reconciles soul and nature. It makes us see the world as the act of a mind striving for beauty. Love of order is one of the deepest sentiments and corresponds to love of life. This all focuses in the paradise of the art ecstacy.

Professor Carl Stumpf publishes a long article in the *Beiblatt*, of a recent Berlin daily, on the wonderful child Otto Pöhlen, who at the age of two years reads Greek and Latin, written or in print, with great rapidity, and pronounces readily and correctly jaw-breaking chemical and other words in rapid succession, which he understands no more of than he does the classical languages. His head is long and prominent in the occiputal region, his health and bodily development good, and his temperament cheeful and very restless, naive despite the great attention paid him by scientific men. His appetite for languages is great, and his memory marvellous. Music fills him with aversion, yet he loves noise. Reading is his passion. He knows the date and place of birth of many great men. Goldscherder, Placzek and other well known men have tested or observed him, and all assert a remarkable innate gift. The great problem all are now asked by his parents, is how to educate him.

*Notes on Children's Drawings.* Edited by ELMER E. BROWN, Professor of the Science and Art of Teaching. Vol. II, No. 1. University of California Studies. 1897. pp. 75.

This is a collection of 63 drawings by five observers, headed by Miss M. W. Shinn, to illustrate the natural evolution of graphic power, with 15 pages of discussion by the editor at the end. With the exception of Dr. Lukens' work, which is not utilized and slightly heeded, this is, perhaps, the most important contribution yet made. Its almost sumptuous publication is made possible by the liberality of the good angel of the University, Mrs. Phebe Hearst.

L. Sholz has an interesting article in German, on the weak-mindedness of puberty, in the last number of the Zeitschrift für Psychiatrie. This, he thinks, may be associated with either too early or too late manifestations of this function. Puberty is an occasional rather than an ultimate cause of defect. It lasts "till the psychic ego is finally formed," at about 25 years.

Dr. J. Milne Brownell has an article of unusual interest in the last issue of *Brain* on the Evolution of Hypnotic Theory, which is the best 100 page digest of current opinion and literature yet published.

# NOTES.

Two new educational journals, which will be most welcome to all progressive educators, and which are important landmarks in the set of the tides towards special and expert teaching, are first the *American Physical Education Review*, a quarterly organ of the Association for the Advancement of Physical Education. The editorial board consists of E. M. Hartwell, the leading American authority on all matters of physical training, as chairman, Prof. G. W. Fitz, of the Harvard Medical School, and R. G. Huling, a Cambridge High School principal. Dr. Hartwell leads with an article on Ling. The Olympic games, statistics of physical education, physical training, Bronsehweig military and manual training, the influence of physical education in general, baths, reports, etc., make up the contents of the first number. ($2.00 per an.)

The *Journal of School Geography*, beginning January, 1897 ($1.00 per an., 10 numbers), is edited by R. E. Dodge, of the Teachers' College, N. Y., with Prof. W. M. Davis, of Harvard, C. W. Hayes, of the Geological Survey, F. M. McMurry, of Buffalo, and others, as associate editors. This brings a judicious union of university and school talent to bear on this most vexed and undefined problem of modern pedagogy.

This is the kind of journalism now chiefly needed in American education, and both these publications should be accessible to grammar school teachers of all grades.

In the *Smithsonian Miscellaneous Collection* (Nos. 1071, 2 and 3. Hodgkins fund), are just published three important memoirs of interest to school hygienists, viz.: *Air and Life*, by H. I. VARIGNEY, pp. 69; *The Air of Towns*, by I. B. COHEN (21 plates, pp. 41), and *The Atmosphere in Relation to Human Life and Health*, by F. A. R. RUSSELL, pp. 148. We are made of condensed air, living at the bottom of a vast sea of air, with no islands but with strange currents, and doomed to stay at the bottom or near it by our constitution. To study the "biology of the air" we must begin with the individual molecule, a millionth of a millimeter in diameter and colliding with others 4700 million times per second. With an average skin surface of 1½ square meters each of us is subjected to a pressure of 15,458 kilograms. After a long list of interesting and popularly stated facts like this the physiology of respiration and practical application, with many original studies, are taken up. Very important, too, for those interested in the subject, are the practical implications of Ducleaux Memoire on the actinic constitution of the air (Smithsonian Contribution, 1034, 1896.)

*The Meyer-Markan Sammlung Päd. Vorträge* has now reached its eighth volume, and still publishes a lecture a month for less than a dollar a year (3.60 M.). The latest numbers, Tew's Elementary Schools, and Hohmann's Needed Reforms, show no falling off in quality or interest.

The Morse Company has published several books of unusual merit

in the New Century series. Supt. S. T. Dutton's Morse Speller is a happy attempt to utilize the seasons and nature material for spelling. The words are grouped, under such types as earth, school, health, history, flowers, physics, chemistry, etc. Deane's Phonetic Reader begins with the Œhlwein method, not before utilized here to our knowledge, of associating sounds and animal noises. N. W. Ford's Nature's Byways is a good selection of science material for primary schools. Altogether we have here a bold but valuable addition to the apparatus of the coming movement to increase nature study.

Prof. Will S. Monroe, of the Westfield Normal School, is conducting a very successful Saturday teachers' class, and has issued eleven leaflets on child study. Supt. Spaulding, of Ware, Mass., has collected extensive data.

In his Lectures on Socrates and Pestalozzi, just published in Berlin, Prof. G. K. Uphues urges that both alike felt it a God-imposed task to educate the people. For the former the knowledge of truth is a moral, for the latter a religious postulate. The method of both was their personality. For both love is the root of all. The art of government is to train the people to virtue.

Arthur MacDonald's mental grasp spans all the wide reach between sociology, pathology and experimental psychology, and he has a rare knack of finding interesting topics and points of view. In his Education and Patho-social Studies, he reprints his part of the last two Reports of Commissioner Harris. Most interesting of all are his criminological studies on H. (probably the murderer Holmes), and the report of the psychological, criminological and demographical congresses in Europe. The account of General Booth's London work is of less interest.

Many parents and teachers have often inquired at book stores and libraries for a concise little book giving the latest facts about astronomy for children without mathematics. Samuel G. Bayne, has at last written such a book, entitled the Pith of Astronomy (Harpers, 1896, p. 122, many cuts). A bright boy can read it through at a single sitting, and it is an admirable compend of the most salient points concerning each of the members of the solar family, and with sections on comets, nebulæ, a few fixed stars, astronomy, telescopes, etc. Every boy ought to have it.

*English Synonyms and Antonyms*, with notes on the correct use of prepositions, is a convenient handbook for both school and home. It is edited by I. C. Fernald, and just published by Funk & Wagnalls, in a tasteful and well-indexed volume of 561 pages. It is easy to find fault with such a book, and we doubt the wisdom of the second pedagogic part. Its utility seems to us chiefly as a reference book and not for the text of class work. This does not diminish the high value of the first and largest part.

---

## ADDITIONAL BOOK NOTES.

*Das Specialistenthum in der Medicen der Gegenwart.* PROF. DR. W. MOLDENHAUER. pp. 27. F. C. W. Vogel, Leipzig.

In this inaugural address the author pleads for a broad basis before the specialization in medical practice, to which young physicians are now so prone. The present courses should be prolonged at least a semester. The social and legal evils of the state approbation of specialists are dwelt on. Most specialists are very inadequately pre-

pared, and combine general with special practice, to the detriment of both. The "six weeks specialists" are an abomination. Yet the future of medical practice will belong to good specialists, and the day of the general practitioner is gradually drawing to a close.

*Zur Hygiene der Arbeit.* DR. EMIL KRAEPELIN, Professor of Psychiatrie in Heidelberg. pp. 30. Gustav Fischer, Jena.

In this popular lecture the author has for the first time tried to state the practical results of his special studies. He believes a vast field is just opening here. We must educate to and for work to which all have a right. Rest, change, interest, recreation, distribution of meals, all kinds of food, and intoxicants are all to this end. Old age and fatigue, monotony, lack of zest reduce it.

*Theorie der Begabung.* DR. RICHARD BAERWALD. O. R. Reisland, Leipzig, 1896. pp. 289.

This is a psychological-pedagogical investigation concerning the existence, classification, causes, plasticity worth and education of human faculty. The root of it is an inquiry into the culture value of language instruction. Formal culture is the education of natural gifts, but the author does not agree with those who urge that a language that is hard is therefore and in that degree educative. Not only memory, so much studied, but wit, understanding, inquisitive feeling, and will, which are of no less importance, demand study. This treatise is almost unique in being devoted to the education of special gifts and talents.

*Charles Darwin and the Theory of Natural Selection.* EDWARD B. POULTON, M. A., F. R. S., F. G. S., F. L. S., etc. pp. 224. The Macmillan Company.

This is an admirably simple and direct story. Besides the life and letters, an immense number of other works have been consulted. Mr. Francis Darwin permitted the use of many letters not before published, and gives much valuable information, and other friends contributed valuable letters and facts. All admirers of the great naturalist will peruse this work with pleasure and profit.

*Short Stories.* MYRA BRADWELL HELMER, age 6 years. pp. 54. Chicago Legal News Company.

Eight short stories, told by a child, with probably the grosser errors corrected. The childish method of objectivity, short sentences and temporal sequences is preserved. Mamma wrote it down as it was talked, and grandpa had it printed. It costs 25 cents, and all the money goes to orphans.

*Kinderpsychologie.* CHRISTIAN UFER. pp. 11.

A reprint from Rein's Encyclopedia of Pedagogy. The author discusses the pedagogic symptoms of child study, its position and content, methods and sources, history, with a copious bibliography at the end. Generous credit is given to American workers.

*Die Liebe.* WILHELM RUDECK. pp. 256. Gustav Weigel, Leipzig.

This is a moral and historical culture study of the development of feeling, and especially love, in Germany, and is illustrated. The first period treated is that preceding that of knight errantry, then follows a chapter on love among knights and at court, and the modern period is given the closing chapter. Each part abounds in poetic quotations, but shows traces of considerable historical reading, although the prevailing tone is sentimental.

*The Language Used in Talking to Domestic Animals.* PROF. H. CARRINGTON BOLTON, Ph. D. pp. 47. Judd & Detweiler, Printers.

Fullest are the terms used in talking to birds, next come horses, then cattle, dogs, sheep, swine, cats, etc. This reprint from the *American Anthropologist* is full of unusual erudition, and of exceeding interest.

*De L'Erreur.* VICTOR BROCHARD, Professor in the Faculty of Letters in the University of Paris. pp. 281. Felix Alcan, Paris.

The historical part treats only of Plato, Descartes and Spinoza. The second part discusses truth, belief, the nature, logical condition, psychological causes, and metaphysical principles of error. Criticism must conciliate moral and scientific certainty.

*An Experiment in Education.* MARY R. ALLING-ABER. pp. 244. Harper & Brothers, Publishers.

The author was one of the pioneers in the new movement of finding out fresh paths in the study and teaching of nature to young children. Some years ago her views attracted much attention, and here at last her methods and theories are presented in clear and attractive form.

*Vitorino Da Feltre.* WILLIAM HARRISON WOODWARD, Lecturer in Education in Victoria University. pp. 256. Cambridge: At the University Press.

This is an excellent introduction to the study of the education of the first period of Renaissance, following the death of Petrarch. The first part is on the career of the notable humorist schoolmaster Da Feltre. Part second translates four notable Latin essays, and the third part treats on the aims and methods of the humorist educator. As a whole the work is a very scholarly and valuable exposition of the ideals of the period, and should be in every educational library.

---

## LETTER TO THE EDITOR.

LONDON, Feb. 27, 1897.

Editor of the PEDAGOGICAL SEMINARY,—

SIR:—I should like to ask the writer of the note on my volume, *Studies of Childhood*, in Vol. III, p. 490, of your journal, who says that it contains hardly a single new contribution to the subject, what he understands by a "contribution" to child-psychology; whether, for example, he would confine the expression to statistical enquiries, and exclude, say, a first, full and methodical attempt (a) to examine the aims, methods and dangers of child-study; (b) to examine, arrange and explain children's ideas, so far as yet enquired into; and (c) to study in comparison with ethnological facts the development of children's drawings of men and animals? I would further like to know how a book, which is said not to be scientific, can possibly supersede, as he says my book supersedes, the two works: Professor Preyer's well known treatise on the *Child's Mind*, and Professor M. Baldwin's work on *Mental Development*, both of which, I take it, are scientific or nothing?

JAMES SULLY.

# SUBJECT INDEX.


Air and Life, 406
Air of Towns, 406
Animals at Work and Play, 396, 409
Antonyms, 407
Arithmetic, 259
Art, Genius in, 404
Astronomy, 407
Atlantis, 399
Atmosphere, 406
Attention. 395

Bibliography, 58, 175, 293
Biology, 401
Blushing, 387
Book Notes, 398
Bullying, Teasing and, 336

Child Observations, 382
— Poetry, 404
— Prodigy, 405
— Study, 265, 266, 399, 400, 402, 408
— Sketch of the History of (to Sept. 1896), 111
Childhood's Country, 400
Children, Degenerate, 221
— Memory in School, 61
— Peculiar and Exceptional, 3
— The Suggestibility of, 176
Children's Drawings in the Early Years, 79
Christ Tales, 266
Civilization, 402
Commissioner of Education, Reports of, 265
Courses of Study in the Elementary Schools of the U. S., 294
Current Educational Topics, 266

Defectives, 403
Demon Possession, 262
Doll Poems, 400
Dolls, 400
— A Study of, 129
Domestic Economy, 403
Drawing, 405
Drawings, Children's, 79
Dreams, 396
— of Animals, 396

Editorial, 1, 127, 267
Education, Study of 409
Elementary Schools, Courses of Study in, of the U. S., 294
Emotions, 396

Fairies of the Sun, 401
Family, 401

Genius in Art, 404
Geography, 406
Great Didactic, 401

Habit and Instinct, 399
Higher Education, 403
Hygiene, 263, 403, 408
Hypnotism, 405

Imitation, 382
Intellectual and Moral Development, 266
Interest, 398

Juvenile Offenders, 399

Kindergarten Geometry, 401

Language, Teaching, a Study in, 269, 408
Literature, 259, 395
Love, 408
Love Poems, 404

Memory in School Children, 61
Mental Development, 265
Myths, 399

Nature in Poetry, 398
— Study, 398, 407, 409
Nervous System, 265
Nervousness, 404

Organic Matter in Air, 263

Parakites, 404
Peculiar and Exceptional Children, 3
Pedagogical Pathology, 404
Physical Education, 402, 406
Plant-growth, 400
Puberty, 400, 405

Reading, 266, 407

School Hygiene, 262, 403, 406
— Reform, 263, 406
— Work, 402
Second Breath, 372
Seminaries, 398
Smithsonian Miscellaneous Collections, 406
Sociology, 401
Specialization, 407
Spelling, 406
Stories, 408
Suggestibility of Children, The, 176
Synonyms, 407

Teasing and Bullying, 336
Telepathy, 395

Universities, 264

Variation, 397

Work, 263

Youth-literature, 398
Youthful Degeneracy, A Study in, 221

# AUTHOR'S INDEX.


Adams, Brooks, 402
Allin, Arthur, 397
Alling-Aber, M. R., 409

Bach, U., 403
Baerwald, R., 408
Bailey, L. H., 397
Baumeister, A., 403
Bayne, Samuel G., 407
Berger, *see Bergey*.
Bergey, David H., 263
Biérent, L., 400
Blakeley, E. S., 400
Bohannon, E. W., 3
du Bois, Patterson, 266
Bolton, H. C., 409
Booth, Charles, 401
Bouquet, Briot, et 260
Boyd, James H., 260
Brinton, D. G., 399
Briot et Bouquet, 260
Brochard, V., 409
Brown, Elmer E., 405
Brownell, J. Milne 405
Burke, Frederic L., 259, 336
Burnham, W. H., 263

Chamberlain, Alex. F., 395, 396
Chandler, H. P., 404
Cohen, I. B., 406
Comenius 402
Compayré, G., 266
Cornish, C. J., 396
Couetoux, Dr., 403
Croswell, T. R., 294

Dana, Mrs. W. Starr, 400
Darwin, Charles, 408
Dawson, George E., 221
Deane, 407
Dodge, C. W., 401
Dutton, S. T., 406

Eber, H., 265
Ellis, A. Caswell and Hall, G. Stanley, 129
Esmarch, E. V., 403
Eulenberg, H., 403

Fernald, I. C., 407
Ford, 407
Fougeray, Dr., 403
Franz, ——, H. Griffing and 266
Frear, Caroline, 382
Friedrich, I., 402
Fullon, Adeline, 401

Griffing, H. and Franz, 266
Grimard, E., 399
Grosse, E., 401

Halevy, E., 398
Hall, G. Stanley, 1, 127, 129, 398
Halleck, R. P., 265
Hegel, 402
Helmer, M. B., 408
Herstatt, W., 403
Hoffmeister, H. W., 402
Hohmann, L., 406

Jahn, 402

Kamp, Otto, 403
Keatinge, M. W., 401
King, Pauline, 400
Königsbauer, I., 263
Kraepelin, E., 408

Laurent, Dr., 264

Leyfert, R., 263
Lukens, Herman T., 79
Luqueer, Fred L., 402

MacDonald, Arthur, 407
Moldenhauer, W., 407
Monroe, Will S., 407
Moore, Kathleen Carter, 265
Morgan, C. Lloyd, 399
Morrison, W. Douglas, 399
Morselli, Enrico, 395
Moulton, Louise Chandler, 400

Nevius, John L., 262

Ostermann, D. W., 398

Partridge, G. E., 372, 387
de Perott, Joseph, 260
Pestalozzi, 402, 407
Porter, Rose, 404
Proudfoot, Andrea H., 266

Reynolds, Myra, 398
Rooper, T. G., 266
Rudeck, W., 408
Russell, F. A. R., 406

Sanctis, Sante de, 395, 396
Scailler, G., 404
Shaw, John C., 61
Sholz, L. 405
Small, Maurice H., 176
Socrates, 407
Spaulding, F. E., 407
Speer, William W., 259
Street, J. R., 269
Stumpf, Carl, 405
Sully, James, 409

Tews, J., 406
Tucker, Genevieve, 400

Ufer, C., 408
Uphues, G. K., 407

Varigney, H. I., 406

Waglom, G. T., 404
Wehmer, R., 262
Wiltse, Sara E., 111
Wolgast, H., 398
Woodward, W. H., 409
Wright, Ernest Vincent, 401

980